BI-WEEKLY PROGRESS REPORT NO. 9

OLD ROOSEVELT FIELD CONTAMINATED GROUNDWATER AREA SITE
REMEDIAL ACTION - PHASE 1, WELL INSTALLATION
GARDEN CITY, NASSAU COUNTY, NEW YORK

Prepared for:
U.S. Environmental Protection Agency
290 Broadway
New York, New York 10007-1866

Prepared by:
CDM Federal Programs Corporation
125 Maiden Lane - 5th Floor
New York, New York 10038

EPA Work Assignment No.	: 023-RARA-02PE
EPA Region	: 2
Contract No.	: EP-W-09-002
CDM Federal Programs Corporation	
Document No.	: 3320-023-00566
Prepared by	: CDM
Site Manager	: Mr. Thomas Mathew, P.E.
Telephone Number	: 732-590-4638
EPA Remedial Project Manager	: Ms. Caroline Kwan
Telephone Number	: 212-637-4275
Date Prepared	: September 27, 2010

213107

Bi-Weekly Progress Report No. 9
Phase 1 – Wells Installation

1.0 Introduction

Pursuant of the Work Assignment Form (WAF) Statement of Work (SOW), for Region 2 Contract EP-W-09-002 Work Assignment 023-RARA-02PE, CDM Federal Programs Corporation (CDM) is performing the Phase 1 (Wells Installation) Remedial Action (RA) at the Old Roosevelt Contaminated Groundwater Area Site. The Bi-Weekly Progress Report is intended to partially fulfill the requirements specified under WAF SOW for this assignment. This Bi-Weekly report is prepared for the work performed from August 23 to September 3, 2010.

The primary responsibility of the project geologist was to oversee the well development and testing activities to ensure that the work meets all requirements of the final Remedial Design specifications and is performed by the Subcontractor in accordance with all applicable quality assurance, health and safety, and regulatory requirements.

The work performed during this reporting period includes: the development of extraction wells, EW-1D, EW-1I, and EW-1S; installation of transducers into selected ports of SVP-2, SVP-3, SVP-4, SVP-5 , SVP-9, and SVP-10; step testing of extraction wells EW-1D, EW-1I, and EW-1S, and sampling for chemical testing after well development and during step testing. This work is summarized in further detail below. A list of the supporting documentation attached with this bi-weekly progress report is as follows:

- Attachment 1 - CDM's Daily Status Report
- Attachment 2 - CDM's Field Log Book Notes
- Attachment 3 – Chain of Custody
- Attachment 4 – Well Development Log
- Attachment 5 - Photo Log
- Attachment 6 – Field Change Request (FCR)

2.0 Personnel On-Site

The following personnel were on site during this reporting period:

CDM - Contractor

Frank Robinson	Project Geologist
Sean O'Hare	Project Scientist
Thomas Mathew	Site Manager
Mike Ehnot	Project Geologist
John Dougherty	Project Geologist

Uni-Tech - Driller

Butch Hitzelberger	Head Driller
Brad Barnes	Driller
Sean O'Rourke	Driller

Intex – Temporary Water Treatment System

Todd Daniel

Westbay
Andy Bessant
Dennis Oertel

Earth Data
George Seidman

Seacoast
Gene Streiter

Network Environmental Solutions
Ken Lippay
Mark Kumorek

Freehold Carting
Alfonso Trocchio

3.0 Summary of Work Performed

The following is a brief summary of the field activities performed during this reporting period (refer to Attachments 1, 2, 3 and 4 for Daily Status Report, log book notes, well development log and photo log, respectively for each working day):

- Site Mobilization
  - Unitech decontaminated and demobilized equipment associated with drilling activities from the site. The extraction well area was cleaned.
  - Dougherty and Thomas visited the infiltration basin, met with two Nassau County personnel, inspected the main inlet to the basin and put a lock on the gate to allow CDM to access the basin.

- Transducer Installation
  - CDM, Westbay, and Earth Data installed transducer strings in wells SVP-5 and SVP-10. Both strings consisted of 5 transducers. In both wells transducers were installed in Ports 1, 3, 5, 8, 10. The MOSDAX/MAGI data recorder, communications cables, and 12 volt battery were secured inside the aluminum cabinets. Data collection at the rate of one reading per minute was started at each location.
  - A transducer was installed in Port 2 of SVP-11. Data collection was started at the rate of one reading per 10 minutes.
  - CDM and Earth Data installed individual transducers in wells SVP-2 (Port 4), SVP-3 (Port 3), SVP-4 (Port 6), and SVP-9 (Port 5). Data collection at the rate of one reading every 10 minutes was started at each location.

- Development of Extraction Wells EW-1S, EW-1I, and EW-1D
  - Uni-Tech completed the development of extraction wells (EW-1S, EW-1I, EW-1D) on August 23 and 24, 2010. Extraction well development procedures are detailed in the log book. During well development, CDM collected water level measurements at

approximately 30 minute intervals initially and then at 15 to 20 minutes interval.
- The sand test was performed on each extraction well. Each well passed the sand test criteria of less than 5 mg/L of sand. One pint of well water was collected into a jar after the sand testing was complete.
- After the sand testing was completed, the extraction well development process was considered complete and samples were collected from each well. The samples were sent to EPA DESA laboratory for TCL VOCs, total iron and manganese, filtered iron and manganese analyses.

- Set-up and Preliminary Testing for Step Test and Aquifer Test
  - CDM and Uni-Tech inspected Garden City wells GWP-10 and GWP-11 and determined how to install a water level indicator in each well. It was determined that the airline at well GWP-11 is working and therefore, water level data from this unit will be used during the test. The air line at GWP-10 does not appear to be working so a water level indicator will be used in that well.
  - CDM, Westbay, and Earth Data verified the data download process from the transducer strings in SVP-5 and SVP-10.
  - CDM completed a round of synoptic water level measurements at the following wells: SVP-2, SVP-3, SVP-4, SVP-9, SVP-11, MW-1S, MW-1I, MW-2S, MW-2I, MW-3S, MW-3I, GWX-10019, GWX-10020, EW-1S, EW-1I, EW-1D, GWP-10, and GWP-11. Data was downloaded from the transducers in the following wells: SVP-2, SVP-3, SVP-4, SVP-9, SVP-11, MW-1S, MW-1I, MW-2S, MW-2I, MW-3S, MW-3I, GWX-10019, GWX-10020, EW-1S, EW-1I, EW-1D.

- Step Testing of EW-1S
  - The step test was conducted at well EW-1S. Flow rates were 40, 60, 75, and 90 gpm. Each step was 2 hours long.
  - At the conclusion of the step test, samples EW-1S/S (total Fe and Mn, VOCs) and EW-1S/S-F (filtered Fe and Mn) was collected and shipped to EPA DESA laboratory for analysis.

- Step Testing of EW-1I
  - The step test was conducted at well EW-1I. Flow rates were 40, 60, 75, and 90 gpm. Each step was 2 hours long.
  - At the conclusion of the step test, samples EW-1I/S (total Fe and Mn, VOCs) and EW-1I/S-F (filtered Fe and Mn) was collected and shipped to EPA DESA laboratory for analysis.

- Step Testing of EW-1D
  - The step test on well EW-1D was completed. Flow rates were 60, 100, 140, and 180 gpm. Each step was two hours long.
  - Samples EW-1D/S (VOC and total Fe and Mn) and EW-1D/S-F (filtered Mn and Fe) were collected at the end of the step test and shipped to the EPA DESA laboratory for analysis.

- Miscellaneous
  - Data was periodically downloaded from the well transducers.
  - Seacoast and NES cleaned out the 21,000 gallon storage tank and 5,000 gallon plastic tank in the staging area. There was about 3 feet of drilling mud left in the bottom of the 21,000 gallon tank before cleaning. NES completed a confined space entry to clean this material out of the tank. The water, drilling mud, and sediment were flushed into a 5,000 gallon vacuum truck provided by Freehold Cartage.

- Health and Safety
  - A tailgate H&S meeting was conducted each day before the start of work activities.

4.0 Problems/Corrective Action

The flush mount surface casings for SVP-2 and SVP-4 were retaining surface water runoff from the parking lot. The casings were extended above ground surface using temporary casing to prevent surface water from entering the well while the port is open. Unitech placed sandbags on top of the buckets covering the temporary casings on wells SVP-2 and SVP-4 to keep the buckets in place during any storms.

Communications problems between the MOSDAX boxes and laptop computer were initially experienced. CDM brought a new computer to the site equipped with a serial port. CDM was able to use this computer to communicate successfully with the MOSDAX boxes.

5.0 Deviations

Based on review of the QAPP and discussions during a field planning meeting, changes were identified to the sample collection scheme specified in the QAPP that need to be documented in a field change request. Two changes were documented 1) a "total" sample was added after the QAPP was prepared and 2) the DESA lab recommended dropping MS/MSD analysis on filtered metals and adding it on nitrate/nitrite. The total sample will be collected from the combined flow from all three wells. The FCR was prepared documenting these changes for EPA approval.

6.0 Conclusions

All RA construction work was completed in general accordance with RA Subcontract Documents and approved construction submittals except as noted above.

ATTACHMENT 1
DAILY STATUS REPORT

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-23-10

Day: 77 (Monday)

WEATHER: Overcast, occasional shower
TEMP: 70's, humid
WIND: Strong, from the South

PERSONNEL ONSITE

CDM :	John Dougherty, Sean O'Hare, Mike Ehnot
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke
Intex:	Todd Daniel
Westbay:	Andy Bessant, Dennis Oertel
Earth Data:	George Seidman

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
-Tender truck.
-Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the extraction well site. See below for details.
- The health and safety plan was reviewed by Earth Data and Westbay personnel. These personnel signed off on the plan. The details of the health and safety plan were reviewed with the Earth Data and Westbay personnel.
- CDM, Westbay, and Earth Data proceeded to install transducer strings in wells SVP-5 and SVP-10. Both strings consisted of 5 transducers. In each well the transducers were installed at ports 1, 3, 5, 8, and 10. The MOSDAX/MAGI data recorder, communications cables and 12 volt battery were secured inside an aluminum cabinet which was connected to flush mount well protective casing using cable ties. Ports are number from deepest to shallowest. Data collection at the rate of one reading per minute was started at each location. The instruments will be check on 8/24/10.
- In the afternoon, opened port 2 at well SVP-11 which converts this well to a temporary piezometer. A transducer was installed in this well. Excess cable was wound up, tied off, and left inside the flush mount protective casing. Data collection was started on this transducer at the rate of 1 reading every 10 minutes. Transducers were installed in wells.
- At the extraction wells Uni-Tech wired each pump to a control box and started pumping all three extraction wells simultaneously. The combined, total flow rate was 400 gpm. CDM collected water level measurements at approximately 30 minute intervals.
- Uni-Tech started clean up of the extraction well area. Drilling pipe and other equipment was loaded on the rig tender truck. The drilling rig and and rig tender were moved to the staging area for decon.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

WORK BEING INSPECTED:

1. Dougherty and Hitzelberger reviewed the specifications for the aquifer testing. After development, the backflow preventer will be placed in the discharge line from each well at the surface. This is acceptable. Installing the backflow preventer directly above the pump would prevent surging by turning the pump on and off from being used during development.

2. UTD currently plans to use one totalizing flow meter, with a sweep second hand, on each discharge line to monitor the flow rate. The specifications call for installation of a mechanical totalizing and mechanical instantaneous reading flow meter. Hitzelberger said he would discuss it with Joan Baer and get back to me.

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:

- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Due to wet weather slips trips and falls were discussed, proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles.
- Daily tailgate H&S meeting with Earth Data and Westbay, topics covered:
Due to wet weather slips trips and falls were discussed, the highlights of the Health and Safety plan were discussed.

TESTING PERFORMED:

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:

GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:

COMMUNICATION WITH CONTRACTOR STAFF:

MEETING:

ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-24-10

Day: 78 (Tuesday)

WEATHER: Overcast, occasional heavy rain.
TEMP: 70's, humid
WIND: Strong, from the South

PERSONNEL ONSITE

CDM :	John Dougherty, Sean O'Hare, Mike Ehnot
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke
Intex:	Todd Daniel
Westbay:	Andy Bessant, Dennis Oertel
Earth Data:	George Seidman

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
-Tender truck.
-Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the extraction well site. See below for details.
- A tailgate H&S meeting was conducted before the start of work by Earth Data/Westbay at the extraction well site. See below for details.
- CDM, Westbay, and Earth Data proceeded to check and download data from the transducer strings in wells SVP-5 and SVP-10. Both strings consist of 5 transducers. In each well the transducers were installed at ports 1, 3, 5, 8, and 10. The instruments were function properly and recording data. Data was downloaded using the vendor supplied software. Westbay then departed site.
- CDM and Earth Data then proceeded to open ports and install individual transducers in wells SVP-2 (Port 4), SVP-3 (Port 3), SVP-4 (Port 6), and SVP-9 (Port 5). Opening individual ports converts this well to a temporary piezometer. The pressure inside and outside the port was checked and the water level inside the transducer was pumped down to ensure that, when opened, water would flow into the Westbay casing (and not out into the formation.) A transducer was installed in each well. Excess cable was wound up, tied off, and left inside the flush mount protective casing. Data collection was started on each transducer at the rate of 1 reading every 10 minutes.

- At the extraction wells Uni-Tech continued development of each extraction wells. Each well was pumped individually. The flow rates were as follows: EW-1S 72 gpm, EW-1I 72 gpm, and EW-1D 157 gpm. CDM collected the static water level from each well before the start of pumping and then collected water level measurements at approximately 15 to 20 minute.
- After the sand testing was completed development was considered complete and samples were collected from each well. The samples are being analyzed for TCL VOCs, total iron and manganese, filtered iron and manganese. These samples were packed on ice and shipped to the DESA lab in Edison, NJ via FedEx.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

WORK BEING INSPECTED:
1. UTD had planned to use one totalizing flow meter, with a sweep second hand, on each discharge line to monitor the flow rate. The specifications call for installation of a mechanical totalizing and mechanical instantaneous reading flow meter. Hitzelberger said he would discuss it with Joan Baer and get back to me. Hitzelberger informed Dougherty that Uni Tech was switching to a flow meter capable of displaying the total flow (in gallons) and the flow rate (gallons per minute). This combined unit is acceptable.

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Discussed safety related to work with the trailer mounted electrical generator being used to operate the pumps in the extraction wells.
- Daily tailgate H&S meeting with Earth Data and Westbay, topics covered:
Discussed the importance of watching for traffic and wearing high visibility vests.

TESTING PERFORMED:
1. The sand test was performed on each extraction well. Each test took about 2 hours to complete. Each well passed the sand test criteria of less than 5 mg/l of sand. One pint of well water was collected into a jar after sand testing was complete.

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:
In the case of SVP-2 and SVP-4 the flush mount surface casing were full or surface water runoff from the parking lot so the Westbay casing was extended above ground surface, using temporary casing, to prevent surface water from entering the well while the port is open. The flush mount casings at SVP-3 and SVP-9 were dry even though it had rained very hard during the morning, indicating the protective casing was keeping run off out of the well. The conditions at these wells will be monitored and the casing will be extended if necessary to prevent surface water infiltration.

GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:

COMMUNICATION WITH CONTRACTOR STAFF:

MEETING:

ADDITIONAL ACTIVITIES AND REMARKS:
See attached photo log for 8/24/10.

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-25-10

Day: 79 (Wednesday)

WEATHER: Overcast, occasional.
TEMP: 70's, humid
WIND: Strong, from the South

PERSONNEL ONSITE

CDM : John Dougherty, Sean O'Hare

Uni-Tech: Butch Hitzelberger, Brad Barnes, Sean O'Rourke

Intex:

Earth Data: George Seidman

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- -Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the extraction well site. See below for details.
- A tailgate H&S meeting was conducted before the start of work by Earth Data at well SVP-4. See below for details.
- Uni-Tech decontaminated drilling equipment and vehicles. The Uni-Tech and CDM checked the three flush mounted monitoring well pairs for surface water infiltration. All protective casings were free of water indicating that the surface seal is working. Uni-Tech worked on set up of the equipment for the step testing. Flow rates on all three extraction wells were adjusted to their initial values for the start of step testing.
- CDM prepared bottle sets for the next two sampling events: step test and aquifer test.
- CDM and Uni-Tech inspected Garden City wells GWP-10 and GWP-11 and determined how to install a water level indicator in each well. It was determined that the airline at well GWP-11 is working and therefore, water level data from this unit at GWP-11 will be used during the test. The air line at GWP-10 does not appear to be working so a water level indicator will be used in that well.
- CDM and Earth Data checked wells SVP-2 and SVP-4 and determined that only one port, as intended, was open in each well so that the well would function as a temporary piezometer.
- CDM successfully installed the MLog and WinGT software required to interface with the MOSDAX data logger installed at wells SVP-5 and SVP-10. The communications cable required to interface the computer with the MOSDAX data logger was tested and did not work. A substitute cable was provided by Earth Data and this cable worked. CDM interfaced with the data logger, downloaded data, and stopped logging on the instrument.

- CDM and Earth Data removed the Westbay logging equipment from well SVP-5 which was installed in a metal box over the well.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

This was done to protect the equipment from vandalism. The equipment will be stored on site and will be reinstalled on Monday 8/30/10 to continue data collection.
- The temporary well extensions installed at SVP-2 and SVP-4 were checked and were working as designed.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Discussed slips, trips, and fall hazard. Use of hard hat required when overhead hazard present.
- Daily tailgate H&S meeting with Earth Data covered:
Discussed the importance of watching for traffic and wearing high visibility vests.

TESTING PERFORMED:

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:

GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:

COMMUNICATION WITH CONTRACTOR STAFF:

MEETING:

ADDITIONAL ACTIVITIES AND REMARKS:
See attached photo log for 8/25/10.

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-26-10

Day: 80 (Thursday)

WEATHER: Clear, Sunny.
TEMP: 80's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM : John Dougherty, Sean O'Hare

Uni-Tech: Butch Hitzelberger, Brad Barnes, Sean O'Rourke

Intex:

Earth Data:

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the staging area. See below for details.
- Uni-Tech demobilized the driller rig from the site.
- Uni-Tech cleaned up around the extraction well area including using a high pressure water sprayer to clean cement from the pavement. The driller placed sandbags on top of the buckets covering the temporary casings at wells SVP-2 and SVP-4 to keep the buckets in place during any storms.
- CDM 1) installed bolts on the lids at wells SVP-5 and SVP-3. 2) Attempted to communicate with the MOSDAX data logger at well SVP-10 but was unable to establish communications. 3) Reviewed sample tubing requirements. 4) Reviewed QAPP and bottle sets prepared by Sean O'Hare to ensure readiness for sampling during step and aquifer testing. Discussed sampling requirements with Grace Chen, identified one parameter left out of the Field Planning Meeting agenda. Added bottleware for this parameter. 5) Installed Forms2Lite on Dougherty's computer, reviewed use with Sean O'Hare. Forms2Lite was used to generate bottle labels and will be used to generate chain-of-custody forms.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Discussed driving safety and hazards and precautions associated with use of high pressure water sprayer used for cleaning.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

TESTING PERFORMED:

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:

Westbay hardware: CDM was able to communicate with the MOSDAX box at SVP-5 on 8/25. On 8/26 we were unable to communicate with the box at SVP-10 while using exactly the same equipment. Later, attempts to communicate with the box from SVP-5 also failed. This issue was discussed with George Seidman of Earth Data. George discussed this with Westbay but the cause of this breakdown in communications is unknown. Suggested solutions include changing computers and cables until a working combination is found. In the mean time the logger at SVP-10 continues to collect data and the data collected at SVP-5 was downloaded. CDM must have a reliable way to communicate with the data loggers so that the sampling rate can be changed and data can be downloaded periodically. Earth Data will return to the site on Monday 8/30 to try to work out a solution.

Field Change Request: based on review of the QAPP and field planning meeting, identified changes to sample collection scheme specified in the QAPP that need to be documented in a field change request. Two changes need to documented 1) a "total" sample was added after the QAPP was prepared and 2) the DESA lab recommended dropping MS/MSD analysis on filtered metals and adding it on nitrate/nitrite. The total sample will be collected from the combined flow from all three wells. Discussed this with Grace Chen who is preparing an FCR to document the requested changes for EPA review.

GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:

COMMUNICATION WITH CONTRACTOR STAFF:

MEETING:

ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-30-10

Day: 81 (Monday)

WEATHER: Clear, Sunny.
TEMP: 90's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM : John Dougherty, Frank Robinson

Uni-Tech: Butch Hitzelberger, Brad Barnes

Intex:

Earth Data: George Seidman

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the extraction well area. See below for details.
- Uni-Tech installed flow meters on the three extraction wells.
- CDM completed a round of synoptic water level measurements at the following wells: SVP-2, SVP-3, SVP-4, SVP-9, SVP-11, MW-1S, MW-1I, MW-2S, MW-2I, MW-3S, MW-3I, GWX-10019, GWX-10020, EW-1S, EW-1I, EW-1D, GWP-10, and GWP-11. Data was downloaded from the transducers in the following wells: SVP-2, SVP-3, SVP-4, SVP-9, SVP-11, MW-1S, MW-1I, MW-2S, MW-2I, MW-3S, MW-3I, GWX-10019, GWX-10020, EW-1S, EW-1I, EW-1D.
- CDM checked the status of the Westbay multilevel transducer system in well SVP-10. It is functioning properly. The data was downloaded from the MOSDAX box and the sampling rate was changed from 10 to 1 minute intervals in advance of step testing on 8/30/10. Earth Data arrived on site to assist with communications between the computer and MOSDAX box.
- CDM and Earth Data reinstalled the MOSDAX logger on the transducer system in well SVP-5.
- CDM contacted Intex and verified that the storage tanks do not need to be cleaned before we start on with the step and sustained yield test.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Discussed need for hydration and use of sun block due to hot, sunny weather.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

TESTING PERFORMED:
PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN: Westbay hardware: To try to resolve the communications problems between the MOSDAX boxes and laptop computer experienced last week, CDM brought a new computer to the site. This computer is equipped with a serial port. CDM was able to use this computer to communicate successfully with the MOSDAX boxes at wells SVP-5 and SVP-10. This problem has been resolved.
GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:
COMMUNICATION WITH CONTRACTOR STAFF:
MEETING:
ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 8-31-10

Day: 82 (Tuesday)

WEATHER: Clear, Sunny.
TEMP: 90's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM : John Dougherty, Frank Robinson, Thomas Mathew

Uni-Tech: Butch Hitzelberger, Brad Barnes

Intex: Todd Daniels

Earth Data:

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted before the start of work by Uni-Tech at the extraction well area. See below for details.
- The step test was conducted at well EW-1S, Flow rates were 40, 60, 75, and 90 gpm. Each step was 2 hours long.
- At the conclusion of the step test sample EW-1S/S (total Fe and Mn, VOCs) and EW-1S/S-F (filtered Fe and Mn) was collected and shipped to DESA for analysis.
- Dougherty and Thomas visited the infiltration basin, met with two Nassau County personnel, inspected the main inlet to the basin and put a lock on the gate to allow CDM to access the basin.
- Dougherty called Frank Koch, Garden City Water Department, and left a message requesting his ok to use the air vent on GWP-10 and GWP-11 for water levels. This involves removing part of the vent by hand. This method is preferred because it is safer because the floor grate around each well can be left in place.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Uni-Tech, topics covered:
Discussed the danger of slips, trips, and falls and the need for hydration and use of sun block due to hot, sunny weather.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

TESTING PERFORMED:
PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:
GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:
COMMUNICATION WITH CONTRACTOR STAFF: Dougherty and Mathew discussed the maximum flow rate that the treatment system must be able to handle during the sustained yield test with Todd Daniels and Butch Hitzelberger. Intex was under the impression that during the sustained yield test the flow would be 220 or 240 gpm. We reviewed the specifications and pointed out that the treatment system must be capable of treating 250 gpm. Daniels agreed that he could meet that requirement.
MEETING:
ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 09-01-10

Day: 83 (Wednesday)

WEATHER: Clear, Sunny, Humid.
TEMP: 90's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM :	John Dougherty, Frank Robinson
Uni-Tech:	Butch Hitzelberger, Brad Barnes
Intex:	Todd Daniels
Seacoast:	Gene Streiter

Network Environmental Solutions (Seacoast Subcontractor): Ken Lippay and Mark Mark Kumorek / Freehold Carting: Alfonso Trocchio

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- Support truck.
-Deere 310E backhoe.
-60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- A tailgate H&S meeting was conducted with Seacoast and Network Environmental Solutions (NES) before the start of confined space entry by NES into the 20,000 gallon storage tank in the staging area. See below for details.
- Seacoast and NES cleaned out the 20,000 gallon storage tank and 5,000 gallon plastic tank in the storage area. There was about 3 feet of drilling mud left in the bottom of the 20,000 gallon tank before cleaning. NES completed a confined space entry to clean this material out of the tank. The water, drilling mud, and sediment were flushed into a 5,000 gallon vacuum truck provided by Freehold Cartage.
- The step test was conducted at well EW-1I, Flow rates were 40, 60, 75, and 90 gpm. Each step was 2 hours long.
- At the conclusion of the step test sample EW-1I/S (total Fe and Mn, VOCs) and EW-1I/S-F (filtered Fe and Mn) was collected and shipped to DESA for analysis.
- Demobilization was discussed with Uni-Tech. Uni-tech will chlorinate the extraction wells on Monday 9/13 and pump the chlorinated water from the wells on Tuesday 9/14. This water will be discharged to the treatment system. On Wednesday 9/15 Uni-Tech will complete the wells. Therefore, the driller should be able to demobilize from the site by 9/20. Intex should be done treating water by Wednesday 9/15. CDM tentatively scheduled Seacoast to clean the 20,000 gallon tanks being used by Intex on Thursday 9/16 and requested that they be removed on Friday 9/17. This will need to be coordinated with Intex because their carbon tanks may need to be moved before the tanks can be cleaned. The carbon tanks may need to be moved to the support area temporarily so that the other equipment (tanks and fencing) can be removed by 9/20.
- Dougherty and S. O'Hare will demobilize the transducers and the contents of the trailer on Monday 9/13 and return the Westbay transducers and batteries to Earth Data on Tuesday 9/14. The other transducers will be shipped back to In-Situ.

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

- Dougherty inspected wells GWP-10 and GWP-11 and located the instantaneous flow meter on both wells. Flow readings will be recorded during the sustained yield test.
- Data from the transducers in SVP-10 and well EW-1I was downloaded for analysis.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:
- Daily tailgate H&S meeting with Seacoast and NES topics covered:
Discussed the need for hydration and taking breaks in shade due to hot, sunny weather. Reviewed the confined space entry permit with Gene Streiter. Confirmed that NES is monitoring atmosphere inside the tank and that the person doing the entry is using a harness and safety line

TESTING PERFORMED:

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:

GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:

COMMUNICATION WITH CONTRACTOR STAFF:
Dougherty and Uni-Tech discussed the maximum flow rate planned for the sustained yield test. Uni-Tech indicated during the day that the maximum flow rate will be 240 gpm as this is the flow rate that Intex is comfortable with. CDM reiterated that the contract calls for the system to be able to handle 250 gpm. Uni-Tech will discuss with their office and Intex.

MEETING:

ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 09-02-10

Day: 84 (Thursday)

WEATHER: Clear, Sunny, Humid.
TEMP: 90's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM : John Dougherty, Frank Robinson

Uni-Tech: Butch Hitzelberger, Brad Barnes

Intex: Todd Daniels

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:
- Pickup truck.
- Deere 310E backhoe.
- 60 Kw Generator

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:
- The rig tender, trailer, and roll off box were demobilized from the site by Uni-Tech.
- The 20,000 gallon tank at the staging area was demobilized from the site.
- The step test on well EW-1D was completed. The test included 4 steps of 2 hours each. Flow rates were 60, 100, 140, and 180 gallons per minute.
- Samples EW-1D/S (VOC and total Fe and Mn) and EW-1D/S-F (filtered Mn and Fe) were collected at the end of the step test and shipped to the DESA laboratory for analysis.
- Scheduling of personnel for the sustained yield test was completed.
- Flow rates for the sustained yield test were discussed with Dan O'Rourke and will be 70 gpm for wells EW-1S and EW-1I and 110 gpm for well EW-1D.
- Data from the transducers in SVP-10 and well EW-1D was downloaded for analysis.

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:

TESTING PERFORMED:

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:
GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:
COMMUNICATION WITH CONTRACTOR STAFF: Dougherty spoke to Todd Daniels of Intex and confirmed that we will be pumping at a total flow rate of 250 gpm. Daniels responded that he would do what was necessary to handle this flow rate.
MEETING:
ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

Daily Status Report

PROJECT: **Old Roosevelt Field Site**

Date: 09-03-10

Day: 85 (Friday)

WEATHER: Clear, Sunny
TEMP: 80's
WIND: Gentle, from the South

PERSONNEL ONSITE

CDM : John Dougherty

VISITORS

TIME	NAME	REPRESENTING	REMARKS
	No visitors		

EQUIPMENT IN USE:

CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:

WORK BEING INSPECTED:

JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:

Daily Status Report (Continued)

PROJECT: **Old Roosevelt Field Site**

TESTING PERFORMED: - The above ground Westbay logging equipment at well SVP-5 was removed for safe keeping during the Labor Day weekend. The cap on well SVP-5 was secured. The above ground Westbay logging equipment at well SVP-10 was left in place because it is the fenced in area near the extraction wells. - Data from the transducers in SVP-5 and SVP-10 were downloaded for analylsis.
PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:
GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:
COMMUNICATION WITH CONTRACTOR STAFF:
MEETING:
ADDITIONAL ACTIVITIES AND REMARKS:

By: John Dougherty

Title: Field Team Leader

ATTACHMENT 2
FIELD LOGBOOK NOTES

Location Roosevelt Field Date 8/23/10
Project / Client Westbay XO Install / EBS
DONOHERTY

0630 Donoherty + S. O'Hare arrive onsite at trailer. Unpack equipment + supplies. S. O'Hare begins calibrating instruments.
0720 Donoherty proceed to well site.
0730 At Extraction well site. Driller is onsite.
0747 Finish discussion w Butch re flow meter set up. Tell him spec call for 2 flow meters.
0750 Return to trailer. Review data on westbay wells.
Plan for Day - S. O'Hare - develop extraction well. Donoherty - Ehnot work w Westbay / Earth Data to install XO's in Westbay wells.
Personnel Onsite: COM: John Donoherty, Sean O'Hare [Butch H. Helberger, Brad Barnes, Sean ~~O'Rourke~~ O'Rourke - UTD]

JD Donoherty 8/23/10

Location Roosevelt Field Date 8/23/10 17
Project / Client Westbay XO Install + well Development. Donoherty

Equipment. All page 5.
Weather 70's, overcast, humid.
PPE: Level D.

0829 Depart to Extraction well site.
0835 Arrive extraction well site. Conduct H+S briefing - Discuss slip/trip/fall hazard.
0858 Meet up w Mr. Ehnot, George Eichman - ED, Andy Dessant + Dennis Oertel from SWS. Review HASP. Conduct Health + Safety briefing - Discuss slips trips/falls, + traffic Safety.
0920 Begin installation of transducers in SVP-5.
0937 2nd XO down hole at SVP-2
0950 4th probe ready to go downhole.
VRAE reading 0 ppm. It has read zero in work zone through out XO install JRO 8/23/10

18

Location ORF Date 8/23/10

Project / Client EPA/ Aquifer Test

DOUGHERTY

Wells where a single XD will be installed:

Well	Port	Cable Len.	
SVP-2	4	50	✓
SVP-3	3	50	✓
SVP-4	6	50	✓
SVP-9	5	50	
SVP-11	2	100.	✓

Wells where Westbay multilevel XD's will be installed.

SVP-5
SVP-10

1028 Transducers installed in SVP-5. Dougherty proceeding to trailer to get Computer for setup at next location.
- Take final reading w/ VRAE. Reads Ø ppm.

1100 Setting up on well SVP-10 to install transducers.

1200 Return to SVP-10 w/

DOUG [signature] 8/23/10

19

Location Roosevelt Field Date 8/23/10

Project / Client

DOUGHERTY

- Check battery voltage, if below 11.5 change out battery.
- When removing - pull SHOE IN, Leave arm out.

extension cords. Installation of XD is proceeding.

1323 Installation of XD string in SVP-10 complete. Transducers (XD) installed at ports 1, 3, 5, 8 + 10.
- At SVP-5, transducers installed at ports 1, 3, 5, 8 + 10.
- Proceed to lunch.

1418 Return to extraction wells. Load up equipment from SVP-10
- Ehnot is checking transducers.

1425 Call Frank Koch re access to GWP-10 + 11. Leave a message.
- Drop off boxes at trailer.

1523 Setup at E. SVP-11 to install transducer.

[signature] 8/23/10 30.24

Location ORR Date 8/23/10
Project / Client Aquifer Test
Dougherty

1528 DTW ft bgs inside SVP-11 Westbay Pipe: 30.25 ft. bgs
1529 Check ~~headspace~~ above breathing zone SVP-11. Reads Ø ppm VOCs.
1530 Commence run w/ pressure transducer to 402' which is the depth to Port 2.
Pressure Check on Port 2.
Pressure inside Westbay is a little higher than the pressure at the port.
1556 Open / close tool downhole.
DTW FT BGS: 31.3 from top of Westbay

2.2 ft. tool, port close.
Open port, water level came up in well.
Open at 2.37
1610 DTW SVP-11 29.72 ft from top of Westbay casing, black mark.
JWD 8/23/10

Location ORR Date 8/23/10 21
Project / Client Aquifer Test
Dougherty

- Install transducer S/N: in SVP-2, Port 2
JWD 8/23/10
1700 All work done at SVP-11, all secure. All cleaned up. Well secure.
~~Post~~ JWD 8/23/10. - Return to trailer. Sean O. prepping bottleware.
1730 Depart trailer - check on Mosaex XD's at ~~EPT~~ SVP 5 + 10 - all ok. Return to trailer.
- O'Keefe informs me that XD's are installed in EW's but may be too deep.
1800 Proceed to Extraction well site. Pull up each XD about 20 feet & secure.
1830 Depart site for day. Proceed to get dinner. Return to hotel.
1940 Attempt to contact helpdesk to get ok to install software on my computer. Unable to reach anyone. Approval granted for software.
JWD 8/23/10

OFF 8/23/10

DOUGHERTY

- Work on DSR and photolog W/ Sean O'Hare.

215 Work done on DSR.

8/23/10

Location Old Roosevelt Field 8/24/10

Project / Client DOUGHERTY

0705 Dougherty onsite at staging area. S. O'Hare at staging area.

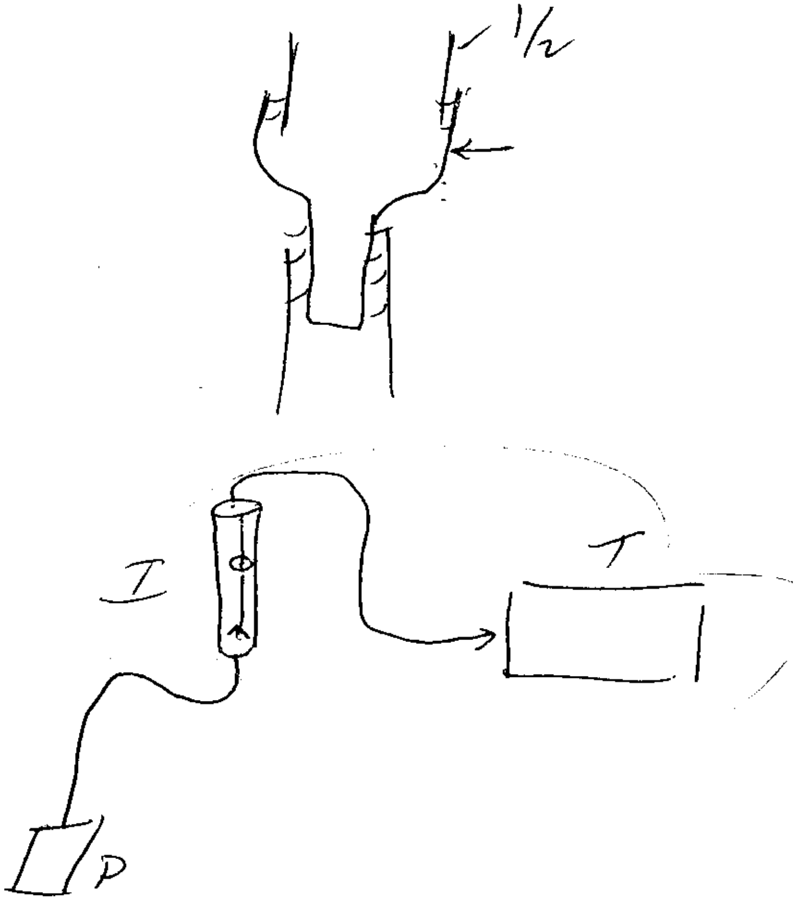
0715 at SVP-4, cones in place.

8/24/10

Location: ORF

Date: 8/24/11

Project / Client: DOUGHERTY



Location: ORF

Date: 8/24/11

Project: DOUGHERTY

0757 Check transducers in SVP-5. All XD's recorded 1263 records, Ø errors, total reading 7588, last read at 0757. Memory used 11.37%.
1 min readings.
To Download, pause data logger.

8/24/11

Project / Client
DOUGHERTY

0900 A. Bessant + D. Oertel depart site.

0947 M. Ehret deploying XD's in EWs. Dougherty + Seidman proceed to SVP-4 to open Port.

1051 Opened Port 6 on SVP-4
Open 0.19 ft. 2.26 to 2.38

1117 Done opening Port 6 at SVP-4. Will attach extension to casing to prevent sw infiltration. Ohering ~~pump tct~~ Use as an observation well.
- Proceed to SVP-2

1130 Set up at SVP-2

1212 Handle in place.
2.24
Try to open port. It
GD - 8/24/10

Project / Client
DOUGHERTY

does not open. May already be open.
1227 Go back down to try to close port.

2.99
3.15

1247 Back to open port.
2.26 closed
2.4 open
Port 6 is now open.
Apparently it was open we closed it.

Final judgement: Port was probably open because head readings inside + outside were identical + we could not open port on first attempt.

1308 Start pressure profile on SVP-2
1333 Complete pressure profile.
G Dougherty 8/24/10

Location ORF 8/24/10

Project / Client
DOUGHERTY

— lunch

1448 Set up at SVP-3.
DTW ft TIC ~~33.33~~ 39.33
top of 4" Stainless Steel.

1501 DTW 40.31 from top of
4" stainless steel
Wait 5 minutes to see
if reading is stable

1506 DTW TIC 4" Stainless
steel = 40.31 Therefore
all ports are closed. —
— proceed to pressure check
SVP-3 port 3

1516 Check pressure on Port
3. Pressure is greater a
port than inside casing so
water will flow in when
port opened.

1517 Proceed to open Port.
Measurement — port
closed 2.14
Try to open ~~op~~ port. Does
not appear to open
[signature] 8/24/10

Location ORF Date 8/24/10

Project / Client
DOUGHERTY

38.2 DTW TIC 4", therefore port
is not open. Determine that we
were not pulling on Port. Reposition
tool so that it is on Port. Place
water level indicator in well
at 31' to check for water level
rise. Open Port. Water level indi-
cator sounds indicating water
level rise which confirms Port is
open.

1601 Depart SVP-2 - all secure.
Proceed to SVP-9.

1603 Set up at SVP-9. ——

1608 DTW 36.49 Top of Westbay
Casing. Install Waterra to
remove water

1619 DTW 38.42 Top of Westbay
Wait 5 min to see if water
level recovers.

1625 DTW 38.42 Top of Westbay
∴ Ports are closed.

1642 Open/Close tool at 291,
ready to Open.
[signature] 8/24/10

ORF 8/24/10

Doing today

1643 DTW 36.61 ft. from West bay inner casing. Meas. start 2.89 down open port, probably sheared pin as tool jerked

1646 DTW 31.42 from top of West bay which indicates port is open.

1704 Done at SVP-11, all packed up.

1715 Eastdata at site.
- Install bolts in SVP-3.
- Come at SVP-2?

1813 M. Ennot at site. Got Rugged reader from him. Finished install of xD on at SVP-9. Casing is very muddy + does not appear to be leaking.

1833 Get trailer. S. O'Hare working on sampling. Drop off extension cords. Proceed to get ice at Gulf station.

ORF 8/24/10

8/24/10

Done today

1904 Back to site w/ Ice for samples. S. O'Hare on site prepping samples to ship. Done with day. Depart site.

8/24/10

Old Research Well. 8/25/10

Personnel

0717 Call Sean O'Hare – complete DSR.

0738 Email DSR – proceed to site.

Location ORF Date 8/25/10

Project / Task

Personnel

0852 SVP-04. Check for open port 5. Stop transducer Troll s/n 138093. Troll 500

0859 DTW 32.94 top of casing, port open. Casing is temporary + stick up about 0.6 ft.

0911 Port closed. Port 6 @ ~~24~~ 253. 2.62 to 2.45 = 0.17

0913 DTW top of temp casing 32.82. Port closed. Open/Close tool downhole.

0918 DTW 35.83 top of temp casing. After removing water w/ bailer pump. Open/Close tool downhole. ~~Collect water level~~ on 8/25/10 Wait 5 min ~~for~~ & Check water level. If port 5 on 8/25/10

Location Off Date 8/25/10

Project / Client SoTest/EPA

Dougherty

CA 8/25/10

open then water level of showed recovery.

17.5 x 18'

2.11
1.98
0.13

0934 Ready to open Port.

0935 DTW 35.86 ft top of temp casing

Open port, meas. 2.11

Water level rose.

0938 Final DTW 32.82 from top of temp casing.

0945 Reinstall transducer S/N 138093 in SVP-4 Port 6 open.

Frank Koch @ 1145.

8/25/10

Location Off Date 8/25/10

Project

Dougherty

Depth readings is 15.09'
DTW is 32.82.

32.82
15.09
47.91

0952 Setup test SVP-04 20100825 to collect data on Troll 500 S/n

1205 Met w/ Frank Koch at GWP-10
DTW 37.7 from top of pipe in well box where air line enters.

Need ruler 1/10' for each GWP.

8/25/10

ORF 8/25/10

Dougherty

1330 Return to Hotel. Check in.
- Get online to install Westbay / MOSDAX / MAGI interface Software.
1430 Software installed on Computer. Return to site.
- lunch.
Return to site.
Ask Butch to check on MW's 1, 2 & 3 to see if SW is getting into wells w/ 4" XD's
1530 At SVP w/ George Seidman from EastData trying to get software working & interface w/ computer working.
1541 First try - no go.
- Change Cable.
1636 Logged onto MOSDAX Box. XD's 1 through 5 report 194 records, Total records 1169
error Ø
Mem used 1.67%
[initials] 8/25/10

ORF 8/25/10

Dougherty

1940 Dougherty's O'Hare Offsite.

1630 - 1930

- remove MOSDAX data logger, battery & cables, and metal enclosure from well SVP-5 to protect equipment from vandalism. Secure well lid on SVP-5.

- Prepare plan for 8/26 - see p 38 - 39.

[initials] 8/25/10

[initials] 8/25/10

ORF 8/25/10

Plan for 8/26/10 DOUGHERTY

✓ - Bolts at SVP-3

- Groover bottle sets + forms
  2 Lits.

✓ - Review drilling SOW + discuss w Driller. - stop - pump

- DESA Communications

✓ - Check Mosquito at SVP-10

- Data Collection Forms for Aq. testing. (Driller has form for flow rates)

- / R2L
✓ - Gate key from Thomas
✓ → Sample ports - inspect.

- sample tubing / filtration
- peristaltic pump tubing.

✓ - Butch bolt sources (Lowes)

ORF 8/25/10

ORF 8/25/10

DOUGHERTY
Shopping list

2 ~~1~~ ruler, 1/10's foot. ; key holder.
order tubing from Pine.

SOW
① Pre-test calibration report on flow meters is due now.

② Need products specs on flow meter to determine acceptance

Flow rates:

EW-1S + EW-1I
1) $0.5 \times 60 = 30$ (40)
2) 0.8×60 48 (55)
3) $1 \times 60 = 60$ (70)
4) $1.33 \times 60 = 80$ (90)

EW-1D
1) $0.5 \times 80 = 40$ (50)
2) $0.8 \times 80 = 64$
3) $1.33 \times 80 = 106$ 107
4) $1.75 \times 80 = 140$ (160)

ORF 8/29/10

ORF 8/25/10

Dougherty

(3) Ali - what are target flow rates for pump test? 60, 60 + 80?

What about 130 gpm for EW-1D?

Loc	Inc	Rate	GPM
EW-1D	0.5	130	65
↓	0.8	↓	104
	1.33		173
	1.75		228

JD

JD 8/25/10

Old Roosevelt Field
USEPA

~~8/25/10~~ 8/26/10

Dougherty

0700 Dougherty + O'Hare onsite at staging area. 0750 / 0809

0710 H+S Briefing w/ Driller: discuss driving safety - rigs being demobed from site today + safety when using high pressured water sprayer.

Plan for Day 1) Driller - demob drilling rig; clean up extraction well area; top off shallow extraction well w/ grout; sandbags on SVP 2+4.
2) ODM - bolts at SVP-3; check MOSDAX at SVP-10; review F22; review bottlesets; inspect sample ports; order any supplies needed, shop for supplies.

~~H+S~~ Personnel Onsite: S. O'Hare + J. Dougherty, CDM. B. Hitzelberger, B. Barnes, + S. O'Rourke - UTD.

Personnel Protection: Level D.

Equipment in Use: Tools.

0745 At SVP-3 to try to replace bolts.

Dougherty 8/25/10

Location: Old Roosevelt Field Date: 8/24/10
Project/Client: Aquifer Test/EPA
Dougherty

0750 Apply penetrating lubricant on bolt holes after blocking lid w/ paper towels.

0829 Have succeeded in tapping screws into holes. Letting penetrating oil evaporate before closing well. ——

0849 Lid secured on SVP-3. 3 bolts secured. ——

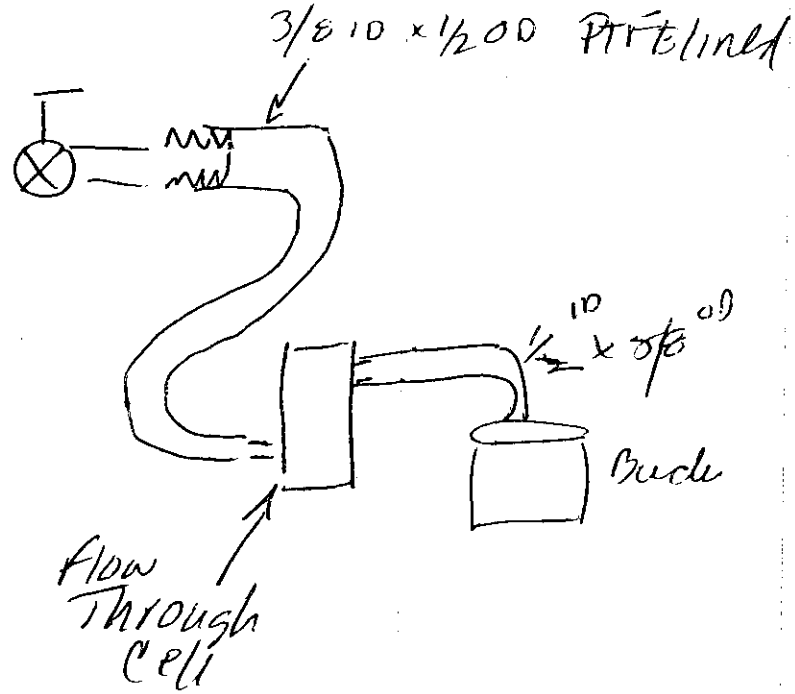
0850

3/8 ID x 1/2 OD

0911 Voltage 12.6 V on battery at SVP-10. Data logging on. Status —— 2% memory used. Unable to communicate w/ MOSDAX using same hardware as yesterday at SVP-5. Informed Earth Data.

DM 8/24/10

Location: Old Roosevelt Field Date: 8/24/10
Project/Client: Aquifer Test/EPA
Dougherty



DM 8/24/10

Location ORF

Date 8/27/10

Project / Client

Dougherty

1038 At trailer. Test MassDAX from SVP-5. Connection ok w/ Cable used on 8/25/10. Leave a message for George. —

1048 Review bottles w/ Sean.
MS/D volume for metals –
1L is sufficient for sample + MS/MSD.
FTA = TSS, TDS + alkalinity
nitrate/nitrite MS/MSD –
Collect extra volume.

MS/MSD at EW-Total-A
- Cyanide ONLY
- nitrate/nitrite
- oil + grease
- total TAL metals + mercury

Trip Blanks
- with each VOA shipment.
TB <date>

[signature] 8/27/1

Location ORF

Date 8/26/10

Project / Client

Dougherty

1139 UTD offsite for day/week.

- review bottle sets + QAPP w/ S. Ottens.
- discuss need for field change request w/ Grace Clark.

1230 Discuss step test + sustained yield test flow rates w/ Butch. Suggested rates for wells
1S + 1I: 40, 55, 70, 90
1D: 30 start, end 160

Review QAPP: issues identified:

① Samples during aquifer test have been revised –
QAPP says 1 sample from each well at 24-48 Hr + 1 at 72. FPM agenda adds a "total" sample + rearranged pa-list. Discussed w/ Grace – will do a FCR.

[signature] 8/26/10

Location ORF Date 8/26/10

Project / Client
Dorgerty

QAPP 17c Samp no FB
Query Sampling, QAPP #20
lists FB

TB Plan
- Synoptic rounds:
a) 1 Before start of tests, Monday 8/30 do all wells in the network including GWP

b) ?

Monday - switch to 1 min logging intervals - Download data from each XD - clear memory + start new test.

1309 Review F2L.
Step 4 - assign date + time
Step 5 - Skip
Step 6 - lab code: DESA

[signature] 8/26/10

Location ORF Date 8/26/10

Project / Client
Dorgerty

6: assign samples to lab.

7: Carrier: FedEx.
- assign samples to carrier.
- Finish

TR - REGION COPY

- Temp Blank in each cooler - put it in in the morning.

- Sign COC.

- PDF COC + email to John Bourbon + John Bill in DESA - site name, date samples collected, number of samples, # of TB's, # of MS/MSD, airbill no, # of coolers

[signature] 8/26/10

Location: Old Roosevelt Field Date: 8/26/10
Project / Client: Aquifer Test / EPA
DOUGHERTY

1121 Downloading Vornos 2 Lite to install on my computer. Called contractor in VA & got License #.
1450 F2L installed on my computer. Attempt to transfer file from Sean O'Hare's computer to my computer.

1501 Call back from George Seidman.
① replace serial cable
② Use same com port on both.
③ reinstall cable
re problem communicating MosDAX at SVP-10.
1505 F2L file transferred from SO to JRO computer.

Bottle configuration
metals 1 L Poly w HNO3
3x 40ml - VOC HCl
Cyanide 1 poly NaOH
O+G 1 L clear glass, ICE
Hardness - 250 ml w HNO3
JRO 8/26/10

Location: Old Roosevelt Field Date: 8/26/10
Project / Client: Aquifer Test / USEPA
DOUGHERTY

MB/MSD QAPP = Field Plan except we are

T-T-A 1 L poly, unpreserv.
TDS, TSS, Alk

Nitrate/Nitrite 250 ml
w H2SO4
1515 Try to reconnect to MosDAX from SVP-5 & check which ports is used. Cannot connect. Give up on this for now.
1546 DOUGHERTY & O'Hare offsite - lunch
1644 Depart site for home.
1930 Arrive home.

JRO 8/26/10

JRO 8/26/10

Location: Old Roosevelt Field Date: 8/29/10
Project / Client: Aquifer test / USEPA
Dougherty

1845 Depart home for Edison to pickup batteries & print outs.
1857 Pickup 3 12v car batteries at warehouse & battery charger.
2030 Depart office after picking up print outs & data collection forms.
2245 Arrive at HI Lynebrook.

8/31/10

Location: Old Roosevelt field (ORF) Date: 8/30/10
Project / Client: Aquifer Test / USEPA
Dougherty

0737 Dougherty arrives onsite at ORF staging area after picking up ice.
- Load up for water level readings.
- Conduct Health & Safety Briefing Hydrate & minimize sun exposure.
0828 Proceed to SVP-5.
0815 Cont. of Area at SVP-5.

0820 DTW 33.47' top of Temporary Casing. Stickup is 0.63 ft. at SVP-4. Check pressure transducer S/N 138093 in SVP-4. Working Ok. PSI = 6.27 Depth = 14.49

0834 33.68' top of temp casing at SVP-2 Stickup 0.95 ft

8/30/10

ORF Aquifer Test/ USEPA 8/30/10
Dougherty

0840 Check transducer in SVP-2
S/n 137878
Pressure 6.43 psi
Depth 14.86 ft.
batt 90%

0849 DTW 31.42 TIC 4" stainless at SVP-3. Stick down from ground surface to top of 4" casing is 0.15'
Check transducer
S/n # 124323
Pressure 8.08
Depth 18.65'

0853

0906 DTW 32.11 from top of sanitary seal at MW-2I.
Check transducer, batt 100%
S/n 165282
pressure 16.2
depth 37.41
Download data ✓ 8/31/10

ORF Aquifer Test/ USEPA 8/30/10
Dougherty

0908 MW-2S DTW 31.09' from top of sanitary seal.
Check transducer
S/n 165779
Pressure 16.35
Depth 37.74
Download data ✓

0929 DTW 25.55 top of san. at MW-3I
Check & download xD.
S/n 165245
pressure 17.53
depth 40.49
batt: 100%
Download ✓

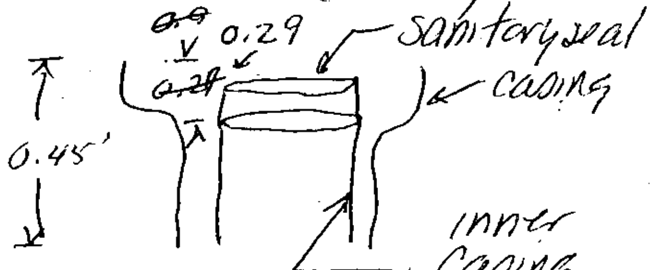
0931 DTW 25.13' top of Sanitary Seal at MW-3S.
Check transducer
S/n 166531
press. 15.43 depth 35.64
batt. 100%, Download ✓
8/30/10

ORF 8/30/11
Aquifer Test/~~ORF~~ US EPA
Dougherty 8/30/11

0934 Call from George Seidman. He is enroute.

0953 DTW at SVP-9 32.51 from top of Westbay PVC. Stick Down from G.S. to top of Westbay = 0.47'
Check transducer
S/N 138065
PSI 6.61
Depth 15.26 ft.
Download ✓
Battery: 89%

1007 ~~GW~~ DTW at 26.88 from top of Sanitary Seal. Stickup 0.45, stick down 0.29' ∴ ~~Casing is~~



[signature] 8/30/11

ORF 8/30/10
Aquifer Test /~~ORF~~ US EPA
Dougherty 8/30/10

Check XD S/N: 169308
Pressure 19.34 psi
Depth 44.66 ft.
Battery 100%
Download ✓

1020 Frank proceeds to Staging area to check on IDW for Gene Streeter.

1030 Call from Ali re flow rates.
- Max of 200 a EW-1D
1, 1.5, 2 & 2.5
- ok to go w/ proposed higher rates per my email.

1041 DTW 31.17' top of San Seal at MW-1S.
Check XD S/N 165263
Batt 100%
Pressure 16.70 psi
Depth 38.74 ft.
Download ✓

1048 DTW 32.31' top of Sanitary Seal at MW-1I.
Check XD.

[signature] Dougherty 8/30/10

Location: ORF Date: 8/30/10
Project / Event: Aquifer Testing / ORF USEPA
Personnel: Dougherty

MW-1I
XD S/N: 165225
Pressure, psi: 16.31
Depth, ft.: 37.65
Download ✓

1050 Frank Robinson rejoins me at MW-1S/1I. Reports that Chiller is onsite.

1115 DTW 30.61 ft. from top of sanitary seal. of GWX-1006
Check XD S/N 165573
psi 17.68
Depth 40.83
Battery 100%
Download ✓

1123 EW-1D Stickup 0.52 above ground surface.
DTW @ EW-1D 35.98' from top of black ~~PVC~~ pipe.
Check XD S/N 134984
Press. 29.59 psi
JDougherty 8/30/10

Location: ORF Date: 8/30/10
Project / Event: Aquifer Testing / USEPA
Personnel: Dougherty

Depth: ~~68.38~~ 68.32 ft.
Download: ~~✓~~
Battery: 88%

1127 EW-1I DTW from top of PVC - black plastic pipe & 35.15 ft. Stickup 0.49.38
Check XD S/N 135167
Pressure: 30.51 psi
Depth 70.43
Battery 90%
Will raise XD a few feet to avoid over pressure.

1133 Raised XD so pressure reading is 29.28 ft.
~~Start new test.~~
Final position:
DTW: 35.15
Pressure: ~~29.4~~ 29.5
Depth 68.09
New test to start at 1140.

1140 EW-1S DTW 34.21 ft below top of black PVC
JDougherty 8/30/10

Location: ORF Date: 8/30/10
Project / Client: Aquifer Test / USEPA
Dougherty

Check XD s/n 137886
Pressure: 27.68 psi
Depth: 63.82 ft.
Download: ✓
Stickup 1.12' above ground.

1200 Call Ari - left a message about calibration sheet for flow meters.

1205 Check on SVP-10. Instrument is in good condition.
Status: Data logging ON
Memory used: 8%
Battery SVP-10A 12.60 V using volt meter.

1228 ~~Down~~ Communicate w/ MOSDAX, download data & stop test. Change batteries.

1229 Battery SVP-10 ~~A~~ B 12.92 V on volt meter.

1231 Install new battery: SVP-10B in housing at SVP-10.

J. Dougherty 8/30/10

Location: ORF Date: 8/30/10
Project / Client: Aquifer Test / USEPA
Dougherty

MOSDAX: 13.3 V DC in
records free 60217
records used 534

1242 SVP-10. Clear data from box. Set up new test to collect data at 1 minute intervals to start at 1245.

1255 Lunch

1334 At trailer to get equipment for SVP-10.

1427 MOSDAX setup at SVP-10. Communications ok.
Battery voltage: 12.8 V per MOSDAX.

1518 Discuss tank situation w/ Intex. Todd Daniels - Ok - Don't need to clean tanks.

1520 Download data at SVP-4 Transducer S/N 138093.
Met driller at GWP wells.

1531 DTW 101.45 at GWP-10 Close to 0 in tm. Pump on.

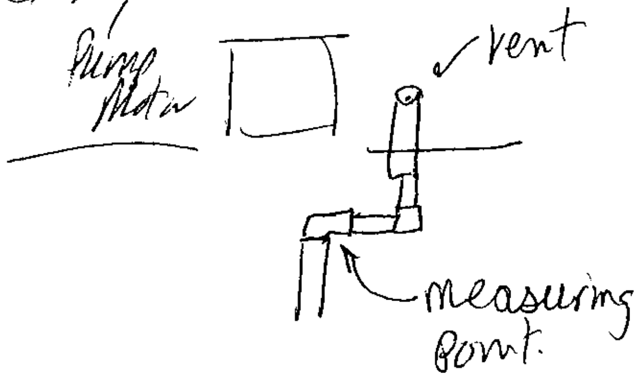
1537 DTW 75.88 at GWP-11 from top of vent tube. Pump on.

J. Dougherty 8/30/10

Location ORF Date 8/30/10

Project / Client AquiferTest / USEPA

Dougherty



1545 Driller off site for day.
1605 Dougherty & Robinson download data from SVP-4.
1610 Robinson off site.
1612 Dougherty secure transducers at Extraction wells.
1620 Dougherty depart site ~~for hotel.~~
- go to Home Depot shopping + get level. - go to Lowe's + get 2 engineers scales.
1715 Shopping completed.
To Do - Call Frank Koch & leave a message about casing vent
- review specs.

Dougherty 8/30/10

Location ORF Date 8/30/10

Project / Client AquiferTest / USEPA

Dougherty

1735 DTW 30.48 top of westbay casing at SVP-11
Stick down: 0.34' bgs.
Check XD S/N 137908
pressure 18.71 ~~ps~~ psi
Depth: 43.21
Batt 90%
Download data ✓
1807 Scout Fed Ex location for shipping samples to DESA. Depart site. Return to Hotel.

1923 Prep DSR
1950 DSR sent. [ORF 0.6]
Plan for Day: 1) install flow meters; 2) synoptic round of water levels; 3) resolve westbay communication problems; 4) setup MosDAx at SVP-5.

Level of Protection: D
Personnel onsite CDM - Dougherty, Robinson; UniTech - Butch H + Barnes; East Data - George Seidman.

Dougherty 8/30/10.

Location Old Roosevelt Field Date 8/31/10

Project / Client Aquifer Test / USEPA

Doughterty

Plan for day 1) step test on EW-1S. 2) Sample EW-1S 3) work up data from observation wells.

Equipment in use YSI water quality meter. Calibrated by Frank Robinson.

8/31/10

Location ORF Date 8/31/10

Project / Client Aquifer Test / EPA

Doughterty

0716 DTW EW-1S 33.93 top of black plastic pipe.

0717 DTW EW-1I 34.72 top of black plastic pipe

0718 DTW EW-1D 35.56 top of black PVC pipe.

0720 EW-1S transducer 137886
Pressure 27.76 psi
Depth 64.14 ft.

0735 Initial flow meter reading 3659.1
Combined flow meter: 17692~~3~~63

0750 EW-1S stickup 1.05' above ground surface.
EW 1I stickup 0.25'
EW-1D stickup 0.5'

0800 Start Step 1 at 40 gpm.

0830 Doughterty - pick up supplies at trailer.

0930 Returns to EW-1S. Prep for sampling.

8/30/10

Location ORF Date 8/31/10

Project / Client Aquifer Test / ESA
Dougherty

0945 Thomas Matthew onsite.
1000 Start Step 2 @ 60 gpm
1020 Dougherty + Matthew visit Recharge basin w/ Nassau Co. DPW.
1040 Depart recharge basin
- return to Extraction well area w/ Thomas Matthew.
- Meet w/ Todd Danks from Inter-Tek. Discuss flow rate for treatment system. Make it clear to him that we expect to be able to treat 250 gpm per the spec.
- Discuss options for 24 sustained yield test w/ Butch H + Thomas M. One option would be to run 3 seperate 24/hr tests, one on each well, at a high flow rate - upwards of 250 gpm.
- Call Dan O'Rourke to discuss options - will look at data from SVP-11 + Call Back.

4WD 8/31/10

Location ORF Date 8/30/10

Project / Client Aquifer Test / ESA
Dougherty

1245 Download data from SVP-10 Westbay transducers.
Discuss pump test schedule w/ Driller, Thomas Matthew + Frank Robinson. Driller wants to start at 0900 - this will be goal actual start may be later.
1325 Dougherty on/site to get computer. Pickup ice + peristaltic pump.
Thomas Matthew departs site.
1450 Dougherty returns to site. Prepare to take sample from EW-15. Prep ice, check PPM + bottleware. Will collect sample at conclusion of pumping at 1600.
1600 Collect sample EW-15/S
VOC pH < 2 ✓
Metals, total pH < 2 ✓
Metals, filtered pH < 2 ✓
pH verified w/ pH paper.
1630 Dougherty at trailer to prep. samples for shipment.
1645 Driller departs site for day.

SVD 8/31/10

Location ORF Date 8/31/10
Project / Client Aquifer Test / EPA
DOUGHERTY

1710 Frank Robinson sign COC + depart site.
1730 Done preping samples for shipment. Depart for FedEx.
1806 Cooler dropped at Fed Ex. Shipped 2 3 sample ~~2~~ :DMD 8/31/10
(HNO₃)
EW-15/S total Fe + Mn,
& VOCs (HCl)
(HNO₃)
EW-15/S-F filtered Fe + Mn
Airbill No: 8735 3386 4965.
1 temp blank + 1 trip blank included ~~in shipment~~. in shipment. DMD 8/31/10
COC No:

1820 at SVP-10, download data from west bay well.
1850 Finish downloading data at SVP-10 + from EW-15.
1906 Check MADDOX at SVP-5. Logging data, all ok. Secure alligator clips to 12v battery w electrical tape.

JMDougherty 8/31/10

Location ORF Date 8/31/10
Project / Client Aquifer Test / EPA
DOUGHERTY

2019 ~~Done~~ To Do DMD 8/31/10
✓ - Download data from Rugged Reader
✓ - Graph EW-15 step test data.
✓ - Process SVP-10 data + graph - look for influence from 15.
✓ - DSR
✓ - email to lab.
✓ - update logbook.
2103 Stop.

DOUGHERTY 8/31/10

Location ORF Date 9/1/10

Project / Client Aquifer Testing / EPA

Dougherty

0700 Dougherty onsite.

0725 FCI onsite to empty 20,000 gallon frac. tanks.

Personnel onsite: Dougherty, Robinson - COM. Hitzelberg & Barnes - UTD.

Equipment: YSI meter for water quality parameters Calibrated by Robinson. See page 5 for equipment info. Calibration recorded on Instrument Calibration Sheet. Water level indicators - see page 5.

J Dougherty 9/1/10

Location ORF Date ~~9/1/10~~ 9/1/10

Project / Client Aquifer Testing

Dougherty.

0730 Static water levels

EW-1S DTW 34.20 top of PVC pipe.

EW-1I DTW 35.80 top of PVC pipe.

EW-1D DTW 35.85 top of PVC pipe.

0737 Download + start new Test on transducer in EW-1I

S/N 135167

pressure 29.54

depth: 68.7721 cm

DTW: 38.07 8/31/10

Test EW-1I 20100901

Scheduled to start at 0750 & collect data at intervals of 1 min.

Digital flow meter reading

EW-1I 535.8

Combined 17726859

J Dougherty 9/1/10

Location ORF Date 9/1/10
Project / Client Aquifer Test / USEPA
DOUGHERTY

0830 Start step test on EW-II. Flow rates will be 40, 60, 75 + 90 gpm.
0830 Frank Robinson inspected 20,000 gallon tank at staging area by Seacoast. Inspect tank + find 3' of drilling mud in bottom of tank.
0900 Call Thomas Mathew discuss 1) ok to SO'Hare to get coolers. 2) demob trailer contents by 9/17. - Check w/ Frank + Butch re schedule. Driller will be chlorinating wells + finishing them during the week of 9/13 + he may not be available.
0945 Dougherty proceed to get ice + work on shipping paperwork.*
1000 Discuss EW-1S step test data w/ Grace C. + Dan O. Dan O'Rourke requests that we try to get flow rate data from GWPS.
~~1037 Depart staging area to EW.~~ (JD)

*Prep trip blank + temp blank

Dougherty 9/1/10

Location ORF Date 9/1/10
Project / Client Aquifer Testing / USEPA
DOUGHERTY

1040 Conduct tailgate H+S briefing by Gene Streeter + subcontract personel. Discuss need for hydration + breaks in shade due to hot, sunny weather. Also discuss safety procedure for confined space entry being conducted by Seacoast + his subcontractor. Inspect confined space entry permit prepared by Seacoast. Have him complete all items on form. —
Personnel working on tank clean out: Gene Streeter, SeaCoast; Brad Barnes - UTD.
Alfonso Trocchio - FCI.
Ken Lippay + Mark Kumorek - Network Environmental Solutions, Inc.
1109 Return to extraction well site. - Step 2 @ 60 gpm underway. Static was 35, dtw now is 36.87.
1120 Phone calls
- Call Thomas re demob - ok to use Sean to demob XO's in

Dougherty 9/1/10

72

Location ORF Date 9/1/10

Project / Client Aquifer Test / EPA

Dougherty

Monday 9/13. Discuss drilling sch - drillers says treatment will be done by 9/14 & pumping to Intex plant will be done by 9/14. Assume, therefore that tanks can be cleaned on 9/16.

- Talk to Todd D at INTEX - he can be demobed by 9/20 but may have to move carbon units to staging area temporarily.

- Talk to Sean O - ask him to plan on working a ORF XD / trailer demob on 9/13 & on 9/14 - take eq to Exton.

1144 Call from B. MacD re Draft needs surveyor deliverable reviewed ASAP.

1214 Call Don O'Rourke - left msg re pulling XD's on 9/13.

~~Call on~~ 9/1/10

[signature]

73

Location ORF Date 9/1/10

Project / Client Aquifer Test / EPA

Dougherty

1247 At GWP-11. Find digital display w/ GWP-11 flow rate. Flow rate is 1210 gpm. Seperate meter lists plant flow @ approx 1400 gpm.

1252 GWP-10 found flow meter on wall in GWP-10 well house.

1257 Call Don O'Rourke & leave a message that we have digital flow meter.

1310 At staging area. Conduct Health & Safety briefing w/ Seacoast & Network Environmental Solutions

- Sign manifest for water removed from 20,000 gal tank.

1400 Pick up ice, refuel truck. Head to EW area.

~1348 SeaCoast, NES & PCI offsite.

1434 At EW location. Step 4 is underway @ 90 gpm.

SPC 32.6 gal ft.

Static W.L. 35

Water level @ 1435 37.76.

[signature]

Location ORF Date 9/1/10

Project / Client Aquifer Test / EPA

Dougherty

1500 Call M. Elliot in Edison - discuss schedule for pump test. He will be onsite at 0700 to start synoptic water levels w/ Frank. Reviewed plan for day.

1515 Call Hagerman discuss schedule.

1525 Call Jeff Rakowski - discuss schedule.

1538 Call Ed K re schedule for pump test, left msg.

1544 Talk to George Seidman re demob of Weatherly equipment.

1600 Collect samples

EW-1I/S	Mn+Fe + VOCs	60
EW-1I/S-F	Mn+Fe filt.	100
Mn+Fe	pH < 2 ✓	140
Filtered Mn+Fe	< 2 ✓	180

1628 At staging area to prep samples for shipment.

1700 Frank Robinson offsite.

1716 Depart staging area for FedEx.

1743 1 cooler dropped off at FedEx on Stewart.

JNDoherty

Location ORF Date 9/1/10

Project / Client Aquifer Test / EPA

Dougherty

Sample Information

Sample	Analysis	pH check	Preserv.
EW-1/S	Mn, Fe	✓	HNO_3
EW-1/S	VOC	✓	HCl
EW-1/S-F	Filtered Mn, Fe	✓	HNO_3

Shipped to DESA Lab. by FedEx Airbill No. 8735 3385 4954

1749 Proceed to EW area to download transducers.

1830 Done downloading data from EW-1I + program EW-1D to collect data at 1 min. intervals. Downloaded data from SVP-1D.

~~18~~ Call Butch - confirm flow rates of 60, 100, 140 + 180 gpm on EW-1D. - Tell him we expect Intex system to handle 250 gpm, not 240 as he indicated earlier on 9/1/10. He said he would talk to Todd + his office about the situation.

1845 Dougherty depart site. - prep. DSR

JNDoherty

Location ORF Date 9/2/10

Project / Client Doubletest / EPA
Dougherty

Plan for Day 1) Conduct step test on EW-1D. 2) Collect GW sample from EW-1D. 3) Empty truck to make room for Coolers.

Personnel Onsite: CDM: Dougherty, Robinson; UTD: Hitzeberger & Barnes.

Equipment in Use: YSI meter & water level indicator - all p. 5.

Level of Protection: Level D.

Weather: Sunny, hot 90's.

AHS 9/2/10

Location ORF Date 9/2/10

Project / Client Double Test / EPA
Dougherty

0600 Robinson & UTD start step test on EW-1D. Dougherty at hotel working on data.

0700 Check in w Frank Robinson - Step test proceeding as planned.

0740 Prepare schedule for sustained yield test. Email to project team.

1000 Depart hotel for site

1152 At staging area. Picked up ice for samples, prepped trip blank & temp blank, prepped cooler for samples, prepped shipping paperwork.

1155 Proceed to EW area.

- at EW area. Step 4 underway at 180 gpm
- discuss treatment system flow rate issue w Butch told him Entech says they can handle 250 gpm - needs to know flow rates.
- look for missing thumb drive - can't locate.

AHS 9/2/10

Location ORF Date 9/2/10

Project / Client Aquifer Test / EPA

Dougherty

1237 Proceed to Staples to get thumb drive, print chart & clear trash bags.

1330 Return to EW area. Prepare ice for samples.

1400 Collect samples EW-1D/S : total Mn & Fe & VOCs and EW-1D/S-F filtered Mn & Fe.

Check pH on both metals samples – both < 2.

– Frank Robinson reports that the 20,000 gallon tank at the staging area has been removed.

1440 At ~~staging~~ staging area to prep. samples for shipment

1522 Frank Robinson checks samples & signs COC. Dougherty offsite to get ice.

1607 Dougherty depart staging area to drop samples at FedEx.

1614 Gate secured.

Dougherty 9/2/10

Location ORF 9/2/10

Project / Client Aquifer Test / EPA.

Dougherty

1627 Samples EW-1D/S & EW-1D/S-F & trip blank dropped at FedEx. Airbill No. 8735 3385 4932.

1637 Return to EW area. Car is blocking access to area, wait for car to move. Make phone calls.

1707 Spoke with Alan Huntley re work next week. Spoke to M. Valentino re CLORA.

1710 Prep transducers on EW's for weekend by covering w/ plastic bags & securing w/ tape.

1720 Download & stop test EW-1D 20100901. Setup new test EW-1D 20100902 to start collecting data 10 min intervals at 1720.

1730 Download data from SVP-10 Westbay XD System. Stop current log. Download data. Setup new test to collect data at 10 min. intervals. Battery 12.73V.

JWD 9/2/10

Location ORF Date 9/2/10

Project / Client Aquifer Test / EPA.

Notes By JN Dougherty

Memory used: 42%

Check status in AM to see if data needs to be cleared for weekend.

1200 Dan at SVP-10. Return to staging area to unload truck.

1211 Dougherty off site. ⟶

Summary of days activities.

- rig tender demobilized from site
- 2 ea 500 gallon tank demobilized from site
- Completed step test on EW-1D 4 x 2 hr steps @ 60, 100, 140 + 180 gpm.
- Collected samples EW-1D/S + EW-1D/S-F @ 1400, shipped to DESA.
- Worked on scheduling personnel for pump test.

[signature] 9/2/10

Location ORF 9/3/10

Project / Client Aquifer Test / EPA

Notes by JN Dougherty

Location ORF Date 9/3/10

Project / Client Dougher Test / EPA

Notes by DOUGHERTY

0800 At SVP-10. Hookup to MOSDAX to try to determine why ~~data~~ time stamp on data is shifted 3 hrs.
- Check MOSDAX display - Clock is reading correctly
- Check data stored on MOSDAX box. The time stamp on the data is correct. Therefore the +3 hour increment is being added to the data during transfer or subsequent post processing.
- Download data - all data from MOSDAX box.
- Battery Voltage: 12.72.
- Log off + Close up SVP-10
- Memory used - about 42%.

0850 Setup at SVP-5.
Battery 12.8 V.
Log on to MOSDAX.
Memory used 4.71%.
Logger time correct.
Stop logging, download data. Log off, tear down SVP-5

J N Dougherty

Location ORF Date 9/3/10

Project / Client Dougher Test / EPA

NOTES BY DOUGHERTY

Overlay surface equipment. — Battery SVP-5 ~~AA~~ pulled.
- Call from Jean O - cages ready + sorbent pads.
- 0933 Done at SVP-5 - well secure. Proceed to staging area.
- 0946 At staging area to unload equipment.

1000 Done at staging Area. Trailer: Trailer secure, windows closed. Gate locked.
- Return to hotel to complete check out.

1100 Return to Horsh, check email revise schedule, phone calls

1300 Depart site for Edison.

1430 Arrive Edison.

J N Dougherty

Location OLF Date 8/23/10

Project / Client RA/EPA

Extraction Well Development

→ Sean O'Hare relinquishes log book from Frank Robinson and takes authorship.

06:45 → John Dougherty & Sean O'Hare arrive at staging area. Start unloading equipment from van into trailer.

07:00 → JD verifies that UTD is on-site setting up pumps / hosing on all 3 extraction wells and removing all drilling pipes.

07:30 → SO begins calibrating YSI model 6920, minirae & vrae air monitoring units. SO has trouble calibrating La Motte 20·20 and informs Pine Environmental to send a new unit out by the end of the day.

08:30 → SO arrives at extraction well cluster 1, 2, & 3 at 400 Ring Road. UTD crew on site includes Brad Barnes and Butch Hitzelberger and Sean O'Rourke

09:00 → John Dougherty of CDM gives health & safety plan discussing slips, trips, & falls, wet surface and overhead hazards.

Weather → Over-cast w/ a strong wind. ~ 75°F Light rain on and off.

PPE → Level D Modified

* John Dougherty and Mike Ehnat assist Westbay and Earth Data with lowering transducers down wells

12:30 → SO takes static water level readings from all three extraction wells.

EW-1D → 33.55'

EW-1I → 33.00'

EW-1S → 32.1'

SO 8/23/10

Location OLF Date 8/23/10

Project / Client RA/EPA

Extraction Well Development

SO 8/23/10

Location ORF Date 8/23/10

Project / Client RA & PA

Extraction Well Development

12:56 → Butch of UTD starts pumping at all 3 extraction wells.

13:12 → water levels are taken from extraction wells.

EW-1D → ~~40.0'~~ 39.87'

EW-1I → 36.38'

EW-1S → 37.30'

13:20 → UTD shuts off pumps at EW-1S and EW-1I to determine that ~ 200 gallons are pumping out of EW-1D.

13:22 → UTD shuts off pumps at EW-1D and EW-1S to determine EW-1I is pumping ~ 115 gallons per minute!

13:25 → UTD shuts off pumps at EW-1D and EW-1I to determine EW-1S is pumping at a rate of 110 gpm.

13:40 → SO takes another round of water levels from all 3 extraction wells.

SO / A 8/23/10

Location ORF Date 8/23/10

Project / Client RA / EPA

Extraction Well Development

EW-1D → 37.95'

EW-1I → 36.5'

EW-1S → 37.35'

13:43 → All pumps are shut off to allow water to re-enter formation.

13:55 → Pumps are turned back on. ~ 425 gallons are being purged in total from all 3 extraction wells per minute.

14:15 → SO checks water levels from 3 extraction wells.

EW-1D → 40.0' toc

EW-1I → 38.20' toc

EW-1S → 36.0' toc

14:26 → All pumps are shut down for 30 seconds and then put back on. This process is repeated to further tighten the sand pack.

14:40 → SO takes another round of water level

SO / A 8/23/10

Location ORF Date 8/23/10

Project / Client RA/EPA

Extractim Well Development

measurements from all 3 EW's Water level measurements are not taken. SO assists Butch H. of UTD by lowering transducers down each extraction well.

15:20 → All 3 pumps are shut off.

15:35 → Pumps are turned back on. It is estimated that ~ 375 gallons are purged per minute from all 3 extractim wells.

16:00 → SO takes a round of water level readings from all 3 extraction wells.

EW-1D → 39.30' toc

EW-1I → 36.00' toc

EW-1S → 36.9' toc

16:40 → Another round of wate level measurements are taken.

EW-1D → 40.0' TOC

EW-1I →

EW-1S → 37.35' TOC

SO 8/23/10

Location ORF Date 8/23/10

Project / Client RA/EPA

Extraction Well Development

16:50 → All pumps are shut off and begin breaking equipment down.

17:20 → SO arrives back at staging area and labels bottleware for tomorrow's samples.

18:00 → SO & JD raise transducers in all 3 extraction wells since they can handle up to 30psi, ~ 60'.

18:20 → SO & JD leave site en route back to hotel. SO will meet UTD at extraction well cluster tomorrow at 7AM.

SO 8/23/10

Location ORF Date 8/24/10

Project / Client RA / EPA

06:40 → SO arrives at staging area to start calibrate equipment. YSI 6920 is calibrated and minime 3000. Please see results on calibration sheets

07:20 → SO picks up ice for today's samples and drives to extraction wells cluster.

07:30 → John Dougherty gives health & safety meeting discussing slips, trips & falls; wet surface, and overhead hazards.

PPE → Level D Modified

Weather → Over-cast, raining ~ 75°F with a moderate wind.

08:15 → UTD begins pumping all 3 extraction wells. SO sets up a sampling station underneathe the pop-up tent.

09:15 → UTD shuts off

SO 8/2

Location ORF Date 8/24/10

Project / Client RA / EPA

Extraction Well Development

all 3 pumps and connects check valves.

UTD crew consists of: Brad Barnes; Butch Hitzelberger; Union worker → Sean O'Rourke.

10:00 → Begin pumping EW-1S for find development stage. UTD will record sand content while CDM will record water quality parameters EW-1S is pumping at a rate of 75 gpm. for the first 5 minutes. After the 5 minutes, the water table adjusted and the rate went down to 72 gpm. UTD set up the nozzle sampler at 1/2 gallon a minute and begin observing the sand content

10:30 → SO begins recording water quality

SO 8/2

Location ORF Date 8/24/10

Project / Client RA/EPA

Extraction Well Development

parameters on development sheets.

12:00 → EW-1S is fully developed after purging for 2 hours.

12:05 → SO collects sample EW-1S/D for TCL VOCs and total iron/manganese. SO collects sample EW-1S/D-F for filtered iron and manganese. SO collects duplicate samples for the following above. Please refer to sample log at end of log book today. All filtered samples were collected using a .45 micron filter

12:30 → Start pumping at EW-1I at a rate of 72 gpm.

12:50 → SO hooks up YSI 6920 and takes first set of water quality parameters. Refer to development

SO 8/24/10

Location ORF Date 8/24/10

Project / Client RA/EPA

Extraction Well Development

sheet for specific readings.

14:30 → Well is developed. Final sand content is measured to be ~ 0.05 ml

14:40 → SO collects sample EW-1I/D for TCL VOC and total iron and manganese. SO collects sample EW-1I/D-F for filtered iron and manganese.

15:00 → Start purging EW-1D at a rate of 157 gpm. SO connects YSI to port and is ready to take water quality parameters.

15:15 → Record first set of water quality parameters. Refer to development sheets.

17:00 → EW-1D is fully developed.

17:10 → SO collects sample EW-1D/D for TCL VOCs and total iron & manganese and sample EW-1D/D-F

SO 8/24/10

Location ORF Date 8/24/10

Project / Client RA/ EPA

Extraction Well Development

for filtered iron & manganese

17:15 → SO loads van with equipment and heads back to trailer to pack samples and send out via FedEx.

Sample Summary

EW-1S/D → VOC, Total Fe/Mn
EW-1S/D-F → Filtered Fe/Mn
EW-1S/D-DUP → VOC, Total Fe/Mn
EW-1S/D-F-DUP → Filtered Fe/Mn
EW-1I/D → VOC, Total Fe/Mn
EW-1I/D-F → Filtered Fe/Mn
EW-1D/D → VOC, Total Fe/Mn
EW-1D/D-F → Filtered Fe/Mn

8/24/10

SO 8/24/10

Location ORF Date 8/24/10

Project / Client RA/ EPA

Extraction Well Development

07:00 → SO arrives at staging area. UTD is on site deconing drill rods and trucks. UTD onsite: Brad Barnes & Butch Hitzelberger. Union contract is Sean O' Rourke

Weather → Over-cast, light to moderate wind ~ 75°F light rain

PPE → Level D Modified

07:30 → SO gives health & safety meeting to discuss slips/trips/falls, overhead hazards & staying alert at all times

08:00 → SO takes static water level measurements:

EW-1S → 32.3'
EW-1I → 33.1'
EW-1D → 33.7'

08:20 → UTD removes some remaining items from extraction well cluster

Location ORF Date 8/25/10

Project / Client RA / EPA

Extraction Well Development

to staging area behind Macy's SO consults with John Daugherty and is informed to put cones in front of westbay well SVP-03 to put new bolts on lid so run-off water cannot easily penetrate into well.

09:30 → SO meets John Daugherty & George Seidman of Earth Data at SVP-03 John Daugherty instructs SO on procedure of turning transducer on and closing & opening port down westbay well to confirm that only 1 port is open. and all the ports are closed

10:15 → SO & George Seidman drive over to SVP-2 and turn off transducer after taking the depth to water.

SO OK 8/25/10

Location ORF Date 8/25/10

Project / Client RA/EPA

Extraction Well Development

10:17 → George from Earth Data obtains a water level at SVP-2 which reads 30.85'. After reading, westbay tool is lowered to -333'. A measurement is taken from the top of casing to the handle bar which is 2.82'. George lowers tool and closes port. Distnce from top of casing to handle bar is 2.67'. George lowers poly-thing to purge water. Depth to water is now 35.8' Open port again. Lower transducer. Pressure → 6.78 Temp → 17.15 Depth → 15.67

11:30 → SO packs up van with equipment and heads back to trailer. SO confirms with Gene Stucito of Sea-Cast Environmental that frag tank will be picked up early next week. SO relays information over to Ali Rahmani of EDM.

12:00 → SO begins mating bottle sets for both

SO OK 8/25/10

Location ORF Date 8/25/10

Project / Client RA/EPA

Extraction Well Development

the step test and the aquifer test

15:00 → SO & JD drive over to pump facility off Clinton Road to determine if water levels can be taken. It is confirmed that water levels can be taken from airline pipe. However, the second pump-house does not allow for water levels to be taken from the airline pipe. JD leaves site to meet with George Seidman at SUP-OS Butch Hitzelberger of UTD arrives at pump house w/ flashlight and assists SO in finding an opening to take a water level reading from. A representative from the water department arrives and shows us the vent to

SO'K 8/25/10

Location ORF Date 8/25/10

Project / Client RA/EPA

Extraction Well Develo

screw off to take our reading from. In addition to the vent, there is a gauge which states where the water level is

14:25 → SO arrives back at trailer and finishes up labeling bottle-wave sets.

15:20 → SO & Butch Hitzelberger check MW's 01S, 01, 02S, 02I, 03S and 03I to verify that well protectors are keeping water out of the wells.

16:00 → SO observes little to no water in all the wells. SO & JD organize the trailer to set up for the step test.

17:35 → SO & JD pick up traffic cones surrounding wells and replace bolts on monitoring wells.

18:30 → SO & JD leave

SO'K 8/25/10

Location ORF Date 8/25/10

Project / Client RA/EPA

Extraction Well Development

site en route to hotel.

* UTD is off site at 16:00

8/25/10

JO 8/25/10

Location ORF Date 8/26/10

Project / Client RA/EPA

Extraction Well Development

07:00 → SO & JD are on site. Butch Hitzelberger & Brad Barnes of UTD are on-site packing up truck. Sean O'Rourke is on site assisting.

Weather → Sunny, light wind ~ 80°F

PPE → Level D Modified

07:30 → JO of CDM gives health & safety meeting. Discusses slips/trips/falls, staying alert and watching for overhead hazards.

07:45 → SO & JD leave staging area to replace monitoring well bolts at SVP-3 and to complete some last minute tasks.

09:00 → Brad Barnes leaves site and drives mud rotary rig back to shop. Butch H. and Sean

JO 8/26/10

Location ORF Date 8/26/10

Project / Client RA/EPA

Extraction Well Development.

0. begin power washing bentonite off ~~ext.~~ road near extraction well vea and top off EW-4S. UTD will place sand bags on top of SVP-2 and SVP-4.

10:30 → JD attempts to connect to SVP10 but fails. JD calls George Seidman who does not have an answer. JD will worry about it later.

11:00 → SO & JD go over F2L and sampling procedure for the yield test and the step test.

12:00 → Both A. leaves site day with Sean O'Rourke. UTD will be onsite on Monday at 9AM. SO & JD continue organizing.

15:00 → SO leaves site en route to CDM warehouse in Edison, NJ to

SO 8/26/10

Location ORF Date 8/26/10

Project / Client RA/EPA

Extraction Well Development

drop off supplies and rental vehicle.

SO 8/26/10

Location ORF Date 8/30/10 MON

Project / Client RA/EPA

water levels / setting up for step test

0550- K. Robinson at Woodbury office doing paperwork + copying logs
0630- At staging area
Clear 68° winds calm
0735- John Dagherty (Con) on site
0800- H&S tailgate meeting
1025- Uni-Tech on site
Butch Hitzelberger + Brad Burner,
1035- Tailgate H&S meeting
1200- Have been collecting water level data w/ J.D. since 0800 this morning.
1530- At Garden City wells w/ Butch collecting water level data from the 2 production wells
1615- leaving the site

8/30/10
FR

Location ORF Date 9/13/10 MON.

Project / Client RA/EPA

Chorining EW's

0635- K. Robinson on site
Light Rain, 62°, wind light & variable
0705- John Dagherty (Con) on site
0715- Sean O'Haire on site: both will be pulling transducers out of wells today
- Butch H. (Uni-Tech) on site
0720- Tailgate H&S meeting
0745- John + Sean pulling transducers from the Extraction wells.
0800- Uni-Tech calculating Chlorinating Extraction wells:
EW-1S: Depth 270' 4.16 lbs - mixed with 2,500 gallons of water
EW-1I: Depth 360' 5.72 lbs with 3,400 gallons of water
EW-10: Depth 415' 6.68 lbs mixed with 4,000 gallons of water.
Chlorine is Calcium Hypochlorite - 65%
Mixture will be pumped down the pipe w/ pump attached at the bottom, EW at ~150' down.
0820- Data logger out of EW's.
0835- Removed check-valves from EW's.

FR 9/13/10

ATTACHMENT 3
CHAIN OF CUSTODY

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: R
Client No:

Region:	2	**Date Shipped:**	8/24/2010	**Chain of Custody Record**	**Sampler Signature:**
Project Code:		**Carrier Name:**	FedEx	**Relinquished By (Date / Time)**	**Received By (Date / Time)**
Account Code:	,	**Airbill:**	8655-6539-2937	1	
CERCLIS ID:	NYSFN0204234	**Shipped to:**	DESA Laboratories/USEPA 2890 Woodbridge Avenue Bldg. 209 Edison NJ 08837 (732) 906-6886	2	
Spill ID:	PE			3	
Site Name/State:	Old Roosevelt Field/NY			4	
Project Leader:	Frank Robinson				
Action:	Remedial Action				
Sampling Co:	CDM				

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	QC Type
EW-1D/D	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1D/D	S: 8/24/2010 17:10	--
EW-1D/D-F	Groundwater/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1D/D-F	S: 8/24/2010 17:10	--
EW-1I/D	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1I/D	S: 8/24/2010 14:40	--
EW-1I/D-F	Groundwater/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1I/D-F	S: 8/24/2010 14:40	--
EW-1S/D	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1S/D	S: 8/24/2010 12:05	--
EW-1S/D-DUP	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1S/D-DUP	S: 8/24/2010 12:05	Field Duplicate
EW-1S/D-F	Groundwater/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1S/D-F	S: 8/24/2010 12:05	--
EW-1S/D-F-DUP	Groundwater/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1S/D-F-DUP	S: 8/24/2010 12:05	Field Duplicate
TB082410	Trip Blank/ Frank Robinson	L/G	TCL-VOC (21)	(HCL) (3)	TB082410	S: 8/24/2010 7:00	Trip Blank

Shipment for Case Complete? N	**Sample(s) to be used for laboratory QC:** EW-1S/D-DUP, EW-1S/D-F-DUP	**Additional Sampler Signature(s):**	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?** _____

F-Fe/Mn = Filtered Iron & Manganese, Fe/Mn = Total Iron & Manganese, TCL-VOC = SOMO1.2 TCL VOC

TR Number: **2-043013577-082410-0001**

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: R
Client No:

Region:	2	**Date Shipped:**	8/31/2010	**Chain of Custody Record**	**Sampler Signature:**
Project Code:		**Carrier Name:**	FedEx	**Relinquished By (Date / Time)**	**Received By (Date / Time)**
Account Code:	,	**Airbill:**	873533854965	1	
CERCLIS ID:	NYSFN0204234	**Shipped to:**	DESA Laboratories/USEPA 2890 Woodbridge Avenue Building # 209 Edison NJ 08837 (732) 906-6886	2.	
Spill ID:	PE			3.	
Site Name/State:	Old Roosevelt Field/NY			4.	
Project Leader:	Frank Robinson				
Action:	Remedial Action				
Sampling Co:	CDM				

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	QC Type
EW-1S/S	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(4)	EW-1S/S	S: 8/31/2010 16:00	--
EW-1S/S-F	Groundwater/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1S/S-F	S: 8/31/2010 16:00	--
TB083110	Trip Blank/ Frank Robinson	L/G	TCL-VOC (21)	(HCL) (3)	TB083110	S: 8/31/2010 7:00	Trip Blank

Shipment for Case Complete? N	**Sample(s) to be used for laboratory QC:**	**Additional Sampler Signature(s):**	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?**

F-Fe/Mn = Filtered Iron & Manganese, Fe/Mn = Total Iron & Manganese, TCL-VOC = SOMO1.2 TCL VOC

TR Number: **2-334176893-083110-0001**

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: R
Client No:

Region:	2	**Date Shipped:**	9/1/2010	**Chain of Custody Record**	**Sampler Signature:**
Project Code:		**Carrier Name:**	FedEx	**Relinquished By (Date / Time)**	**Received By (Date / Time)**
Account Code:	,	**Airbill:**	873533854954	1	
CERCLIS ID:	NYSFN0204234	**Shipped to:**	DESA Laboratories/USEPA 2890 Woodbridge Avenue Building # 209 Edison NJ 08837 (732) 906-6886	2.	
Spill ID:	PE			3.	
Site Name/State:	Old Roosevelt Field/NY			4.	
Project Leader:	Frank Robinson				
Action:	Remedial Action				
Sampling Co:	CDM				

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		QC Type
EW-1I/S	Groundwater/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1I/S	S: 9/1/2010	16:00	--
EW-1I/S-F	Ground Water/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1I/S-F	S: 9/1/2010	16:00	--
TB090110	Trip Blank/ Frank Robinson	L/G	TCL-VOC (21)	(HCL) (3)	TB090110	S: 9/1/2010	7:00	Trip Blank

Shipment for Case Complete? N	**Sample(s) to be used for laboratory QC:**	**Additional Sampler Signature(s):**	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?**

F-Fe/Mn = Filtered Iron & Manganese, Fe/Mn = Total Iron & Manganese, TCL-VOC = SOMO1.2 TCL VOC

TR Number: **2-334176893-090110-0001**

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: R
Client No:

Region:	2	**Date Shipped:**	9/2/2010	**Chain of Custody Record**	**Sampler Signature:**
Project Code:		**Carrier Name:**	FedEx	**Relinquished By (Date / Time)**	**Received By (Date / Time)**
Account Code:	,	**Airbill:**	873533854932	1	
CERCLIS ID:	NYSFN0204234	**Shipped to:**	DESA Laboratories/USEPA 2890 Woodbridge Avenue Building # 209 Edison NJ 08837 (732) 906-6886	2.	
Spill ID:	PE			3.	
Site Name/State:	Old Roosevelt Field/NY			4.	
Project Leader:	Frank Robinson				
Action:	Remedial Action				
Sampling Co:	CDM				

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	QC Type
EW-1D/S	Ground Water/ Frank Robinson	L/G	Fe/Mn (21), TCL-VOC (21)	(HCL), (HNO3) (4)	EW-1D/S	S: 9/2/2010 14:00	--
EW-1D/S-F	Ground Water/ Frank Robinson	L/G	F-Fe/Mn (21)	(HNO3) (1)	EW-1D/S-F	S: 9/2/2010 14:00	--
TB090210	Trip Blank/ Frank Robinson	L/G	TCL-VOC (21)	(HCL) (3)	TB090210	S: 9/2/2010 7:00	Trip Blank

Shipment for Case Complete? N	**Sample(s) to be used for laboratory QC:**	**Additional Sampler Signature(s):**	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?**

F-Fe/Mn = Filtered Iron & Manganese, Fe/Mn = Total Iron & Manganese, TCL-VOC = SOMO1.2 TCL VOC

TR Number: **2-334176893-090210-0002**

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

ATTACHMENT 4
WELL DEVELOPMENT LOG

TD - 280'
DTW - 32.9'
water - 240'

Camp Dresser & McKee
Field Log

Site: Old Roosevelt Field Date: 8/24/10

EW#: 15 Well Diameter: 8" Total Depth: 270

DTW: 37.15 3X Vol: ~~6,162~~ 1,817 Pumping Rate: 72 gpm

Start Purge: 10:00 End Purge: 12:00 Vol. Purged: 8,640

Sampling Time: 12:05

Water Quality Data									
Time	Temp (°C)	pH	Conductivity	Turbidity	~~DO~~ Drawdown (mg/l)	Pump's Rate gpm	~~Comments~~ Sand Content ml/l	100	ORP
10:30	17.46	4.89	0.643	0.80	36.15	72	0	2.05	255.2
10:45	17.44	4.91	0.636	0.75	36.1	72	0	4.69	253
11:00	17.45	4.91	0.632	0.75	36.05	72	0.05	8.00	250.9
11:15	17:46	4.97	0.635	0.35	36.0	72	0.05	13.13	245.6
11:30	17.45	4.97	0.635	0.00	36	72	0.05	12.16	244.4
11:40	17.44	4.98	0.633	0.00	36	72	0.05	15.82	243.5
11:50	17.44	4.98	0.631	0.00	36	72	0.05	16.58	244.1
11:55	17.42	4.98	0.629	0.00	36	72	0.05	16.85	244.0
12:00	17.43	4.97	0.628	0.00	36	72	0.05	17.39	243.9
12:05 → Well is developed. Samples are collected									

Camp Dresser & McKee
Field Log

Site: Old Roosevelt Field Date: 8/24/10

E W#: 1I Well Diameter: 8" Total Depth: 340'

DTW: 34.75' 3X Vol: ~~6,140~~ 2,380 Pumping Rate: 72 gpm

Start Purge: 12:30 End Purge: 14:30 Vol. Purged: ~~8,640~~ 8,640

Sampling Time: 14:40

Water Quality Data

Time	Temp (°C)	pH	Conductivity	Turbidity	~~DO~~ Drawdown (~~mg/l~~)	Pump's Rate	~~Comments~~ Sand Content ml/l	DO	ORP
12:30 → Begin purging. Static DTW → 34.75									
12:50	16.59	5.20	0.366	~~644~~ 0.9	34.70	72	0.05	17.73	222.
13:10	16.06	5.15	0.367	0.9	34.70	72	0.05	15.20	220.
13:30	16.07	5.14	0.370	0.6	34.05	72	0 05	12.45	220.
13:50	16.27	5.14	0.371	0.0	33.80	72	0.05	20.50	218
14:00	16.64	5.15	0.371	0.0	33.45	72	0.05	15.97	219.
14:10	16.08	5.14	0.371	0.2	33.40	72	0.05	18.32	220.
14:20	16.22	5.14	0.370	0.1	33.0	72	0.05	05.66	220.
14:35	16.24	5.14	0.370	0.1	33.0	72	0.05	08.84	220.
14:30	16.27	5.14	0.370	0.1	33.0	72	0.05	04.97	220
14:35	16.28	5.14	0.370	0.1	33.0	72	0.05	04.36	220
14:40 → Samples are collected. Well is fully developed									

Camp Dresser & McKee
Field Log

Site: Old Roosevelt Field Date: 8/24/10

E W#: 10 Well Diameter: 8" Total Depth: 410

DTW: 30.85' 3X Vol: 3,940 Pumping Rate: 157 gpm

Start Purge: 15:00 End Purge: 17:00 Vol. Purged: 18,840 g

Sampling Time: 17:10

Water Quality Data									
Time	Temp (°C)	pH	Conductivity	Turbidity	Drawdown ~~DO~~ (mg/l)	Pump Rate	~~Comments~~ Sand Content ms/l	DO	ORP
15:00 → Start Purging. Initial DTW →					32.85'	157		1.99	256.9
15:15	14.67	5.08	0.360	1.3	38.55	157	0	15.6	257.
15:30	14.61	5.10	0.360	1.3	37.55	157	0	30.3	258.
15:45	14.62	5.10	0.359	1.0	37.25	157	0	30.59	269.
16:00	14.57	5.09	0.359	1.1	37.35	157	0	38.27	266.
16:15	14.57	5.09	0.359	1.1	37.90	157	0	39.9	260.
16:30	14.57	5.09	0.359	1.1	38.2	157	0	40.08	260
16:45	14.59	5.08	0.360	1.1	38.15	157	0	42.33	262.
16:50	14.58	5.08	0.360	1.1	38.15	157	0	42.54	259.
16:55	14.59	5.08	0.360	1.1	38.15	157	0	41.76	259.
17:00	14.58	5.09	0.360	1.1	38.15	157	0	43.38	258.
17:10 → Well is fully developed. Samples collected									

ATTACHMENT 5
PHOTO LOG

PHOTOLOG

SITE NAME: **OLD ROOSEVELT FIELD SITE**

CAMERA # Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010164.jpg	Moving drilling rods from extraction well cluster	08-23-10	Sean O'Hare
P1010165.jpg	Loading drilling rods onto support truck	08-23-10	Sean O'Hare

PHOTOLOG

SITE NAME: **OLD ROOSEVELT FIELD SITE**

CAMERA # Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010167.jpg	Adjusting flow rate to ½ gpm on the sand content sampler	08-24-10	Sean O'Hare
P1010168.jpg	Sand content sampler at EW-1S	08-24-10	Sean O'Hare
P1010169.jpg	Sand content sample at EW-1S	08-24-10	Sean O'Hare
P1010170.jpg	A total of 0.05 mg/L deposited into vial from EW-1S	08-24-10	Sean O'Hare
P1010171.jpg	EW-1I	08-24-10	Sean O'Hare
P1010172.jpg	YSI is connected to the sampling port for a continuous flow to collect water quality parameters	08-24-10	Sean O'Hare
P1010173.jpg	Sand content sample at EW-1I	08-24-10	Sean O'Hare
P1010174.jpg	A total of 0.05 mg/L deposited into vial from EW-1I	08-24-10	Sean O'Hare
P1010175.jpg	Collecting samples at EW-1I	08-24-10	Sean O'Hare
P1010176.jpg	A total of 0.00 mg/L deposited into vial from EW-1D	08-24-10	Sean O'Hare

PHOTOLOG

SITE NAME: **OLD ROOSEVELT FIELD SITE**

CAMERA # Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010178.jpg	Tripod set up at SVP-2 to verify open port	08-25-10	Sean O'Hare
P1010179.jpg	Lowering westbay tool down SVP-2	08-25-10	Sean O'Hare
P1010180.jpg	Westbay logging equipment inside lock-box at SVP-5	08-25-10	Sean O'Hare
P1010181.jpg	Sand content samples from all 3 extraction wells collected on August 24, 2010	08-25-10	Sean O'Hare

PHOTOS 08-23-10

P1010164.jpg **Moving drilling rods from extraction well cluster**

P1010165.jpg **Loading drilling rods onto support truck**

PHOTOS 08-24-10

P1010167.jpg Adjusting flow rate to ½ gpm on the sand content sampler

P1010168.jpg Sand content sampler at EW-1S

P1010169.jpg Sand content sample at EW-1S

P1010170.jpg A total of 0.05 mg/L deposited into vial from EW-1S

P1010171.jpg EW-1I

P1010172.jpg YSI is connected to the sampling port for a continuous flow to collect

P1010173.jpg Sand content sample at EW-1I

P1010174.jpg A total of 0.05 mg/L deposited into vial from EW-1I

P1010175.jpg Collecting samples at EW-1I

P1010176.jpg A total of 0.00 mg/L deposited into vial from EW-1D

P1010178-Tripod set up at SVP-2 to verify open port

P1010179- Lowering westbay tool down SVP-2

P1010180- Westbay logging equipment inside lock-box at SVP-5

P1010181- Sand content samples from all 3 extraction wells collected on August 24, 2010

ATTACHMENT 6
FIELD CHANGE REQUEST

125 Maiden Lane, 5th Floor
New York, New York 10038
tel: 212 785-9123
fax: 212 785-6114

September 7, 2010

William Sy
EPA QA Officer
U.S. Environmental Protection Agency
2890 Woodbridge Avenue
Edison, New Jersey 08837

PROJECT:	RAC 2 Contract No.: EP-W-09-002 Work Assignment No.: 023-RARA-02PE
DOC CONTROL NO.:	3320-023-00558
SUBJECT:	Field Change Notification Form #RA-02 Change in Groundwater Sampling during Aquifer Testing Old Roosevelt Field Contaminated Groundwater Area Site Remedial Action Garden City, New York

Dear Mr. Sy:

CDM Federal Programs Corporation (CDM) is submitting the following documentation of changes to the Aquifer Testing activities at the Old Roosevelt Field Contaminated Groundwater Area Site in Garden City, New York titled: #RA-02: *Change in Groundwater Sampling during Aquifer Testing:*

If you have any questions regarding this submittal, please contact me at (212) 377-4536 or Ms. Grace Chen at (732) 590-4626.

Very truly yours,

CDM FEDERAL PROGRAMS CORPORATION

Jeniffer Oxford
Regional QA Coordinator

Enclosure

cc: H. Eng, EPA Region 2 (Letter Only)
T. Mathew, CDM
A. Rahmani, CDM
Document Control
C. Kwan, EPA Region 2
J. Litwin, CDM
G. Chen, CDM

Old Roosevelt Field Contaminated Groundwater Area Site
Remedial Action
Garden City, New York

Field Change Request

Date: August 26, 2010

Request No.: RA-02

FCR Title: Changes of Groundwater Sampling during Aquifer Testing
Description:
This Field Change Request includes three changes: (1) addition of the collection of a groundwater sample from the sampling port at the common header (which combines flows from all three extraction wells) during the yield test, (2) changes to the list of groundwater parameters to be analyzed during the yield test, and (3) changes to the collection of matrix spike/matrix spike duplicate samples (MS/MSD).

Reason for Deviation:

(1) The Final RA QAPP specified collection of groundwater samples from the sample port of each extraction well. Even though the groundwater quality parameters can be calculated from the groundwater parameter and flow rates from each well, it would be more straightforward to use the results from a sample collected from the combined flow. Therefore, during the yield test, two groundwater samples will be collected from the common header, one between the 2nd and the 8th hours of the yield test; one at the end of the yield test.

(2) The purpose of analyzing VOCs, total and dissolved iron and manganese is to estimate the influent groundwater quality for treatment. Additional wet chemistry parameters, such as nitrate/nitrite, TSS, TDS, alkalinity, hardness etc. are for information only. Therefore, those wet chemistry parameters will only be analyzed for the samples from combined header.

(3) Communication with DESA indicated that MS/MSD for filtered TAL metals is not necessary but that an MS/MSD should be included for the nitrate/nitrite analysis.

Recommended/Modification:
The table below provides details of the sample and analysis changes.

Sample ID	Analyses	Notes
EW-1S/Y-A	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1S
EW-1S/Y-AF	Filtered TAL metals	
EW-1I/Y-A	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1I
EW-1I/Y-AF	Filtered TAL metals	
EW-1D/Y-A	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1D
EW-1D/Y-AF	Filtered TAL metals	
EW-Total-A	TCL VOCs, total TAL metals with mercury and cyanide, TSS, TDS, alkalinity, hardness, nitrate/nitrite, oil and grease	From the common header

Sample ID	Analyses	Notes
EW-Total-AF	Filtered TAL metals	From the common header
EW-1S/Y-B	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1S
EW-1S/Y-BF	Filtered TAL metals	
EW-1I/Y-B	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1I
EW-1I/Y-BF	Filtered TAL metals	
EW-1D/Y-B	TCL VOCs, total TAL metals with mercury and cyanide	From sample port of EW-1D
EW-1D/Y-BF	Filtered TAL metals	
EW-Total-B	TCL VOCs, total TAL metals with mercury and cyanide, TSS, TDS, alkalinity, hardness, nitrate/nitrite, oil and grease	From the common header
EW-Total-BF	Filtered TAL metals	

MS/MSD analysis will be performed on samples collected for TAL metals analysis, cyanide, and oil and grease as specified in the QAPP. An MS/MSD analysis will not be specified for filtered TAL metals (the QAPP included an MS/MSD for filtered metals). An MS/MSD will be added for nitrate/nitrite analysis.

Impact on Data Quality Objectives:
These changes will better achieve the data quality objectives by obtaining a more complete data set for the project.

RAC 2 Contract No.: EP-W-09-002
Work Assignment No.: 023-RARA-02PE

Signatures:

Grace Chen, CDM Design Engineer

Thomas Mathew, CDM Project Manager

cc:
Caroline Kwan, EPA Remedial Project Manager
Ali Rahmani, CDM Project Engineer
Jeniffer Oxford, CDM QA Coordinator
Old Roosevelt Field RA Field Team